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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

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MONTHLY
LABOR REVIEW

SPECIAL FEATURES IN THIS ISSUE

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UNITED STATES DEPARTMENT OF LABOR
W. N. DOAK, Secretary
BUREAU OF LABOR STATISTICS
CHARLES E. BALDWIN, Acting Commissioner

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This Issue in Brief

Since 1923 there has been a loss of over 16,000 employment opportunities in the five major branches of the leather industry, as shown by a recent study made by the Bureau of Labor Statistics. About one-third of this displacement can be attributed directly to the increase in hourly output, ranging in the various branches from 4 to 27 per cent and averaging approximately 15 per cent for the industry. This increase in man-hour efficiency is in turn due mainly, it was found, to improved management. Page 473.

A survey of the extent and methods of spreading work, made by the President's Organization on Unemployment Relief in March, 1932, covered 6,551 companies, employing 3,475,870 persons. The most usual method of spreading work was found to be by reducing the days worked per week, 58.8 per cent of the companies having adopted this practice. Other methods in use were: The reduction of working hours per day; shorter shifts in continuous operation; alternating shifts or individuals; and rotation of days off. Page 489.

Employees in manufacturing industries in the United States averaged 37.3 hours of work per week in May, 1932, according to an analysis of reports received by the Bureau of Labor Statistics. For manufacturing and nonmanufacturing industries combined, the average weekly working hours were 41.1, varying from 24.7 in the case of bituminous coal mining to 52.5 in the production of crude petroleum. It is of interest to note that in spite of the low average hours worked, a considerable proportion of the employees worked relatively long hours. Thus, in the case of manufacturing industries, more than 30 per cent of the employees covered were working more than 40 hours per week, some 10 per cent more than 48 hours, about 1 per cent more than 60 hours, and a limited number more than 70 hours per week. Page 602.

Between 1929 and 1931 the number of credit unions increased from 785 to 1,057 in 20 States for which the Bureau of Labor Statistics has collected data. During the same period the membership of reporting unions rose from 246,289 to 268,381. The societies for which reports were received for 1931 had an aggregate share capital of over $15,000,000 and total resources of more than $33,000,000. Loans made during 1931 in 11 States reporting amounted to over $19,000,000 and loans outstanding at the end of the year in 19 States to more than $26,000,000. Considerably over half a million dollars was returned in dividends by the credit unions in 13 States reporting on this point. Page 560.

Average hourly earnings in the manufacture of woolen and worsted goods in the early part of 1932 were 44.7 cents for males and 32.7 cents for females, as compared with 51.6 and 39.2 cents, respectively, in 1930, according to a recent survey by the Bureau of Labor Statistics of wages and hours of labor in 91 representative woolen and worsted mills in 14 States. In 1932 full-time weekly earnings of males averaged $22.62 and of females $16.35; in 1930 the averages were $25.65 for males and $19.40 for females. Average full-time hours per week of males were 50.6 in 1932, as compared with 49.7 in 1930, and of females 50, as against 49.5. Page 628.

Earnings in the boot and shoe industry in the early part of 1932 averaged 49.3 cents per hour for males and 30.8 cents for females in 164 representative factories in the 16 States in which the industry is of the most importance. In 1930 hourly earnings of males averaged 60.4 cents and of females 38.2 cents. Full-time weekly earnings of males, as shown by the 1932 study, averaged $24.11, and of females, $15.06, as compared with $29.48 and $18.68, respectively, in 1930. Average full-time hours per week were the same for both males and females, 48.9, being the same as in 1930 for females and one-tenth of an hour longer for males. These and other data from a survey of wages and hours of labor in this industry, completed recently by the Bureau of Labor Statistics, are given on page 616.

Union scales of hourly wage rates in May, 1932, as compared with May, 1931, showed 14 increases, 337 decreases, and no change in 333 cases, according to information collected by the Bureau of Labor Statistics. Full-time working hours between the two dates had increased in 7 cases and decreased in 58, while in 619 instances there had been no change. Page 637.

As a means of protecting the workers on public construction projects, many States, and also the Federal Government, require the contractor to give a bond insuring payment to all persons having just claims upon him for services or materials. The complete text of the law passed by the Seventy-second Congress covering construction work in the District of Columbia and citations from the State laws are contained in the article beginning on page 545.

Accidents in the cement industry decreased in frequency in 1931 as compared with 1930, the decline in frequency rates being from 7.23 to 6.67 per 1,000,000 hours' exposure. On the other hand, there was an increase in the severity rate from 2.47 to 3.31 per 1,000 hours' exposure. Page 554.

A recent study of vacation policies in New York City, made by the Merchants' Association of New York, showed that of the 273 companies responding to the inquiry 265 would give vacations to salaried employees this year, and that 65 of the 115 reporting in regard to hourly employees would grant vacations to some of the hourly workers. Full salaries during vacations were to be paid by 218 companies, and 36 companies reported that full wages would be paid to the hourly rated employees. Present business conditions were responsible for the revision of vacation policies in all but 2 of the 74 companies reporting that a change in their vacation practices had been made since 1929. Page 533.

The effect of the depression on employee stock-ownership plans is shown by a study by the industrial relations section of Princeton University, which has followed the course of the employee stock-ownership movement for several years. Of 20 representative companies reported upon, 5 have definitely discontinued their plans, 5 others have made no recent offering of stock for employee purchase, and 2 companies have taken steps to distribute stock under altered arrangements. Dividends have not been paid by 2 companies for two or more years, 1 stopped paying in 1931, and 4 others have passed dividends in 1932. Page 524.

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Labor Productivity and Displacement in the Leather Industry

THIS article presents the results of a study of the displacement of labor in the five major branches of the leather industry in the United States, resulting from recent changes in equipment, processes, and management. This study, like the others in the same field which have been made by the Bureau of Labor Statistics, seeks to arrive at the volume of labor displaced by ascertaining the recent changes in the quantity output of the leather industry per man-hour. In this case the years between which this change has been measured have been 1923 and 1931. The data were obtained through the cooperation of more than 50 tanning companies, including all but a very few of the large and medium-sized organizations in the industry.

The study showed a gross loss of 16,277 employment opportunities from 1923 to 1931, in these five branches of the industry, of which almost one-third can be attributed directly to the increase in hourly output. The main cause of the greater man-hour productivity was undoubtedly improved management of labor.

The quantity output per hour in the leather industry has risen materially since 1923. This increase ranges in the various branches from a little over 4 per cent in the manufacture of sheepskins to more than 27 per cent in the manufacture of side leather. For the whole industry the increase may be placed at approximately 15 per cent. This change is not, of course, great in comparison with some other American industries whose methods have of late years been subject to spectacular alteration; and the number of men displaced has been kept down by the fact that the leather industry has never been one of great volume from an employment standpoint. Nevertheless this supplies a clear-cut case of labor displacement, in recent years, where there seemed to be little reason to look for it; and the analysis of the causes that explain it brings out some tendencies of great interest, which have not thus far received much attention in the discussion of the problem of technological unemployment.

Scope of Survey

Period Covered

THE year 1931—the last complete calendar year—and 1923 were selected for study. Although 1923 is more recent than would usually be thought desirable in a study of this kind, the use of this year was at once unavoidable and adequate because (1) the difficulty of obtain-

ing the records required increases with great rapidity as one goes back more than five or six years; and (2) there is a good deal of reason to think that a long period of rising prices has tended to discourage efforts to increase labor efficiency in the leather industry, while a period of falling prices (like that of very recent years) has tended to encourage them. There are grounds for holding, therefore, that a relatively large part of the displacement of labor from technological and similar causes in the tanning industry—at any rate since 1915—has actually occurred since 1923.

Portion of Industry Covered

The leather industry is a group of 10 or 12 semi-independent industries. The present study, however, has been confined to the manufacture of the five major classes of leather—sole leather, side leather (including patent leather), calfskin, kid leather, and sheepskins. These five classes of leather have constituted of late years 80 or 90 per cent (in terms of value) of the total output of the industry.

Table 1 shows, for each of the branches of leather manufacture covered, the importance of the plants studied in their particular field.

TABLE 1.—TOTAL PRODUCTION AND NUMBER OF EMPLOYEES IN FIVE MAJOR BRANCHES OF LEATHER INDUSTRY, 1923 AND 1931, AND IN PLANTS COVERED IN PRESENT STUDY

Class of product, and year	Entire industry			Plants covered by survey				
					Average number of employees		Production	
	Number of plants in operation	Average number of employees [1]	Production (approximate)	Number	Direct labor [2]	Total	Amount	Per cent of total in class
Sole leather:			*Lbs.*				*Lbs.*	
1923	([3])	10,085	415,000,000	[4] 27	3,202	3,812	130,499,194	[4] 31.5
1931	[5] 69	6,290	283,000,000	[4] 30	3,915	4,661	180,709,879	[4] 63.9
Side leather: [6]			*Sq. feet*				*Sq. feet*	
1923	([3])	13,760	559,000,000	13	5,310	6,247	225,890,604	40.4
1931	[5] 42	8,942	387,000,000	13	4,317	5,079	216,158,616	55.8
Calfskin:								
1923	([3])	7,809	170,000,000	11	3,372	3,967	86,821,005	50.8
1931	[5] 36	4,436	115,000,000	11	2,783	3,274	82,976,826	72.1
Kid leather:								
1923	([3])	9,634	205,000,000	11	5,441	5,890	126,096,972	61.5
1931	[5] 33	10,076	227,000,000	12	5,140	5,587	131,881,085	55.5
Sheepskins: [7]								
1923	([3])	6,753	294,000,000	5	1,581	1,860	89,257,446	30.3
1931	[5] 44	4,408	208,000,000	6	1,696	1,995	103,265,513	49.6
Total:								
1923	[1] 315	48,041		67	18,906	21,776		[8] 46.2
1931	[5] 224	34,152		72	17,851	20,596		[8] 55.0

[1] Estimated.
[2] For occupations excluded from term "direct labor," see under "Sources and character of data."
[3] No data.
[4] Numbers of plants and percentages refer to production of plants whose records were analyzed. The whole production of same companies represented 41 plants and about 75 per cent of sole leather in 1931 and 27 plants and about 38 per cent in 1923.
[5] Partly estimated.
[6] Including patent leather and splits. Excluding splits, the total production for the industry for 1923 was approximately 409,000,000 square feet and for 1931 approximately 283,000,000 square feet; and the production in the plants covered by the survey was 179,275,891 square feet in 1923 and 171,727,769 square feet in 1931.
[7] Not including chamois and shearlings.
[8] Estimated on basis of value.

The classes of leather covered by the survey in 1929 (the latest year for which statistics are at present available), were made in about 250 plants; but in 1931, owing to the closing of unprofitable establishments, for the most part permanently, the number had fallen to about 225. In 1923 the number was somewhat over 300.

Of the 225 plants active in the manufacture of these major classes of leather in 1931, perhaps 160 or 165 were recognized factors in the trade at large, the remainder being either small or so situated as to do a purely local business. Of these hundred and sixty-odd the survey covered the records of 83, or just about a half. But, though these 83 constituted only about 37 per cent of the active plants, they were responsible for about 55 per cent of the output.

The 1923 figures of the survey cover about 25 per cent of the plants then active and 45 per cent of the production. These proportions are smaller than for 1931 primarily because the records for so many plants since closed are no longer accessible. There seems to be no reason to suppose, however, that the 1923 data do not constitute a reasonably representative sample.

Sources and Character of Data

The man-hour figures which appear in this report were for the most part compiled from the pay rolls of tanneries. Some supplementary estimating has been necessary, but the facilities for doing this and for checking the results have been so satisfactory that there is little reason for questioning the general accuracy of the totals.

The figures cover man-hour productive labor only. This excludes executives, clerical workers, general laborers not concerned in the handling of stock in process, watchmen, outside truckmen, and power plant and maintenance and repair staffs. This definition of direct labor is nearly the same as that used for their own purposes by most tanneries; occasional minor discrepancies, involved, for instance, in the treatment of the hours worked by foremen, may be disregarded. As regards most of the items of indirect labor, it makes little difference from a comparative standpoint whether they are included or excluded. This statement, however, does not apply to the power plant and repair or maintenance staffs; and the chief reason for excluding these classes was that the data regarding them are not comparable for different concerns.

In many industries the presence of a large proportion of pieceworkers makes the collection of much of the data for a study like the present one very difficult. In the leather industry there are a good many employees called pieceworkers, but the effect on the problem of compiling man-hour data is comparatively slight. A substantial majority of the plants whose records were analyzed record hours worked for all classes of employees. Where such records are not kept for pieceworkers, the variations between the average actual working-days of piece and time workers is in most cases comparatively small. A few instances were encountered in which pieceworkers were said to put in a quarter or a third less time than timeworkers; but there were only a few of these, and as a rule the difference, as far as it could be determined, was under 10 per cent. All possible allowance has been made for these differences in cases where it has been necessary to estimate pieceworkers' hours and it is believed that the results are roughly accurate.

The distinction between piece and time workers in the tanning industry, indeed, is in many cases nominal only. The ease with which relatively valuable material in process can be damaged by hasty work makes tanners suspicious of piecework as a method of speeding up. Payment by piece rates, therefore, is normally accompanied by the specification of a "task," which as a rule may not be exceeded. Very frequently a volume of material which must be put through a given process on a certain day is divided more or less equally among a group of men paid at piece rates, and the whole group appears on the pay roll as working the same number of hours.

Piecework, therefore, in the leather industry is of little consequence as a means of increasing competitively the quantity efficiency of labor. There are one or two exceptions to this statement, but these have little bearing on the net conclusions expressed in this report.

Characteristics of Industry

Classes of Product

THE present sole-leather output of the United States is made normally in some 65 tanneries. Of these approximately 55 manufactuer sole leather only. The primary product of the remainder is belting, harness, or upholstery leather; but with the decline in the demand for the latter products in recent years these plants have taken to the manufacture of sole leather to fill in. The crisis in the belting, harness, and upholstery leather markets has been so acute, indeed, that recently the sole-leather outputs of most of these concerns have overshadowed their original and proper products. With one or more exceptions, however, these plants are not important factors in the total output.

Side leather is the trade name for shoe upper leather made of cattle hides. All side leather is split to reduce its thickness, the outer or hair layer thus produced being called the "grain" and the inner or flesh layer the "split." The leather made from splits is much inferior to that made from grains and sells for lower prices. It is used especially for shoe insoles, low-grade gloves, etc. Patent leather is a kind of side leather made from hides of somewhat superior quality and produced by giving the leather a final finish by japanning.

Calfskin and kid leathers are high-grade leathers produced in staple form for shoe uppers or as novelty leathers used for women's novelty shoes and other articles.

Leather made from sheepskins is used for a variety of purposes, such as shoe linings, gloves, leather garments, fancy bags and pocketbooks and hat sweatbands, and to cover the spinning rolls of textile machinery. The classes of sheepskins known as shearlings (sheepskins tanned with the wool) and chamois were not included in the present study.

Location of Plants

Originally, small sole-leather tanneries depending on local supplies of hides and tanbark were widely distributed over the older States. At an early stage, however, this industry tended to concentrate near the bark supply of the Appalachian highlands. There is now only one active sole-leather tannery in New England and none at all on the Atlantic seaboard. There are a few straight sole-leather plants in Michigan; and most of the harness-leather tanneries making sole

leather on the side are in that State and in Ohio and western New York. But, except for these and for a small number on the Pacific Coast, the concentration in the central and southern Appalachian highlands, from southwestern New York to the borderland of North Carolina and Tennessee, is now complete.

At present, with the original Appalachian bark supply almost gone, the disadvantages of this concentration are numerous. There has been no material tendency toward a shift, however, largely because the developments in late years have made necessary a decided reduction in the number of sole-leather tanneries, because the industry is little fitted for urban locations, and because existing companies have lacked the ready capital for the construction of new plants in more favorable locations. All but a very few of the sole-leather tanneries, therefore, are still in rural communities, and a large proportion are in very small and inaccessible ones.

The two main centers of side-leather manufacture are in the neighborhood of Boston and Chicago. Calfskin is produced near Boston, in Milwaukee, and in certain outlying cities in Wisconsin; the Wisconsin group is now the most important, several of the New England plants having closed. The main center of the kid-leather industry is Philadelphia and the near-by cities of Camden, N. J., and Wilmington, Del.; there is also a group of plants in the towns north of Boston, but elsewhere the number of plants is insignificant.

For many years, and in the main as late as 1923, the major part of the sheepskin industry covered by this survey was heavily concentrated in three centers: Around Boston (especially in the cities of Salem and Peabody, Mass.); in New York City and in Newark and vicinity; and in Johnstown and Gloversville, in Fulton County, N. Y. The New England industry made chiefly shoe-lining stock, with a good deal of fancy leather, hat sweatbands, and roller leather; the New York and Newark industry was confined mainly to fancy leather; and the Fulton County industry was primarily devoted to glove leather. In recent years, and for the most part since 1923, there has been a noticeable shift in this distribution. Partly because of the relative decline in the prices of calfskins and some other kinds of raw stock which are superior in some respects to sheepskins, and partly in connection with efforts to standardize the raw materials of shoe manufacturing, the proportion of shoe-lining stock and of fancy bag and pocketbook leather made out of sheepskins declined considerably; and the specialized New York and Newark industry, consequently, is at present of comparatively little importance in the consumption of the class of skins under discussion. The manufacture of high-grade glove leather has always been something of a specialty in this country, and the demand for the better grades of leather gloves has tended to fall off with changes in living conditions. Both the New England and the Fulton County industries, therefore, have tended to fill in with the new specialty of garment leather for sport coats. It is most unlikely that this will be a permanently reliable item, but it was very important in the output of 1931.

Philadelphia is the center of the chamois industry, but also contains a few sheepskin tanneries making other kinds of leather. There never have been more than three or four sheepskin tanneries, other than shearling plants, in the Middle West, and only one of these, of very recent origin, is of much consequence.

Size of Plants

Table 2 shows the average weekly number of employees (direct labor only) per company in 1923 and 1931, in each of the branches of the industry covered by the present study.

TABLE 2.—WEEKLY AVERAGE NUMBER OF EMPLOYEES IN TANNERIES IN 1923 AND 1931, BY CLASS OF LEATHER PRODUCED

Class of product	Average number of employees (direct labor only [1])	
	1923	1931
Sole leather	119	131
Side leather	408	332
Calfskin	307	253
Kid leather	495	428
Sheepskins	316	283

[1] For occupations excluded from the term "direct labor," see p. 475.

Trend of Productivity

TABLE 3 shows the total man-hours worked, the average hours per week, and the production per man-hour in the five branches of the industry in 1923 and 1931.

There is a variation between the branches of the industry, both in absolute output per hour (as far as the production figures are comparable) and in the increase that has developed since 1923, the causes of which are discussed in the following pages. The variations, however, are not large, and a fairly precise idea of the increase in output per hour for the industry as a whole can be derived from the figures in Table 3 without elaborate calculations.

TABLE 3.—HOURS WORKED AND MAN-HOUR PRODUCTION IN TANNERIES COVERED BY SURVEY, 1923 AND 1931

Class of product	Total man-hours worked in year (direct labor [1] only)		Average hours per week		Production per man-hour		
						1931	
	1923	1931	1923	1931	1923	Amount	Per cent of increase over 1923 [2]
					Lbs.	*Lbs.*	
Sole leather	7,857,651	9,001,486	47.2	44.2	16.61	20.08	18.5
					Sq. ft.	*Sq. ft.*	
Side leather [3]	11,858,048	9,709,745	42.9	43.3	[4] 16.97	[4] 21.58	27.2
Calfskin	7,037,385	5,825,463	40.1	40.3	[4] 12.87	[4] 14.78	14.8
Kid leather	13,170,716	11,722,469	46.5	43.9	[4] 9.87	[4] 11.56	13.7
Sheepskins [5]	3,808,533	4,222,558	46.3	47.9	23.44	24.46	4.4
Total	43,732,333	40,481,721	44.5	43.6			

[1] For occupations excluded from the term "direct labor," see p. 475.
[2] Data either not available or not comparable for 3 sole-leather plants, 1 kid plant, and 1 sheepskin plant. Comparison therefore based upon remaining plants.
[3] Including patent leather and splits.
[4] Adjusted to apply to comparable proportions of the various types of this class of leather.
[5] Not including chamois and shearlings.

The increase in the output of side leather per hour is the greatest appearing for any class covered by the survey, though not far from that for sole leather. At the same time the absolute output per hour is a good deal higher than in the case of the other classes of upper leather. The explanation of these facts is partly that side leather is made from a cheaper raw material and (apart from patent leather) is less highly finished than calf or kid, and that its manufacture is comparatively little complicated by novelties and highly varied specialties. On the other hand, the raw material of side leather is nearly the same as that of sole leather.

The sheepskin industry is unlike the other branches of leather manufacture covered by the present survey in that the net increase in output per hour from 1923 to 1931, if there was any at all, was small. The chief explanation of this, beyond much doubt, lies in the effect of the shift from shoe-lining stock to garment leather in offsetting any increase due to improved management of labor. The relative amounts of labor expended on these two classes of leather vary considerably from plant to plant, but on an average the amount required on garment leather is materially greater. The shift from shoe-lining stock to garment leather was plainly in large part temporary. It is quite likely, therefore, that a reduction in the near future of the offsetting increase in labor resulting from the shift will lead to a clear increase in output per hour, due to improved labor management already in operation.

The increased output per hour in the calfskin and kid branches, due mainly to improved management, has been less than in the sole and side leather branches, largely because of the relatively high cost of the raw material and product, the relatively large proportion of high-grade leathers, and the high finish required by a large part of the product. These facts imply, first, that the grade of the labor in 1923 was already rather high, so that the opportunity for the taking up of slack, except in two or three of the larger plants, was rather limited; and, second, that it has not been as easy as in the case of the other classes of leather discussed in this report to speed up many of the operations without endangering the quality of the product.

In the case of all the classes of leather covered by the survey, except sheepskins, the plants whose records have been analyzed have tended to classify themselves into three groups, showing a relatively high, a medium, and a relatively low output per hour, respectively.

Table 4 shows the output per man-hour in plants with a relatively high, medium, and relatively low output in the five branches of the industry studied. The figures have been adjusted to allow for variations in types of product, that would have affected the comparability of the outputs per hour.

TABLE 4.—PRODUCTION PER MAN-HOUR IN SPECIFIED GROUPS OF PLANTS IN EACH OF MAJOR BRANCHES OF LEATHER MANUFACTURE, 1923 AND 1931

Class of leather, and year	Production per man-hour in specified groups of plants			
	High group	Medium group	Low group	All groups
Sole leather:	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
1923	17.06	14.79	15.50	16.61
1931—				
Plants comparable with 1923	21.70	18.49	15.64	19.68
All plants	21.86	18.67	15.64	20.08
Side leather: [1]	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*	*Sq. ft.*
1923	23.04	16.15	11.80	16.97
1931	28.99	19.69	13.90	21.58
Calfskin:				
1923	15.41	14.23	9.94	12.87
1931	17.62	14.74	11.11	14.78
Kid leather:				
1923	10.83	10.80	8.22	9.87
1931	12.80	11.58	8.61	11.22
Sheepskins:				
1923				23.44
1931—				
Plants comparable with 1923				23.25
All plants				24.46

[1] All grain leather.

It is seen that the differences between the groups of calfskin companies are small in comparison with those in the case of side leather.

In the kid-leather branch the fact that the difference in output per hour between the groups is relatively small is to be attributed mainly to the standardization of the industry, to its geographical concentration, and to the comparative stability of the demand for its product. That the increase in output per hour shows fairly wide variation, on the other hand, is the result largely of differences in conservation of management. With a stable demand, with comparatively little tendency to increase in the intensity of competition, and with a higher degree of labor efficiency to start with than obtained until recently in other branches of leather manufacture, increase in output per hour has not been forced on all the more important kid companies to the extent that it has in the case of sole, side, and calfskin leather. The conditions that made this conservatism possible, however, are now changing, and there are indications that the problem of labor cost is being forced on the attention of some kid companies that have been able, relatively speaking, to ignore it thus far.

Amount of Labor Displaced

THE following table translates the figures for output, on which discussion has thus far centered, into terms of men actually employed. The figures showing opportunities lost are, of course, derived from the other columns of the table showing number of employees and should be considered only as approximations.

TABLE 5.—ESTIMATED LOSS OF EMPLOYMENT OPPORTUNITIES, 1923 TO 1931, IN FIVE MAJOR BRANCHES OF LEATHER INDUSTRY

Class of product	Estimated normal production of industry	Normal weekly average number of employees		Estimated number of employees		Employment opportunities lost—	
		At 1931 production per hour	At 1923 production per hour	1931	1923	Due to increased hourly output	From all causes
	Pounds						
Sole leather	332,000,000	8,562	9,696	7,298	12,120	1,134	4,822
	Square feet						
Side leather	530,000,000	11,754	14,406	8,584	15,194	2,652	6,610
Calfskin	145,000,000	5,724	6,672	4,540	7,868	948	3,328
Kid leather	250,000,000	10,920	11,734	9,915	9,622	814	[1] 293
Sheepskins	275,000,000	5,706	5,729	4,316	6,126	23	1,810
Total		42,666	48,237	34,653	50,930	5,571	16,277

[1] Gain.

In dealing with actual displacement of labor in any industry it is necessary to take account of the change in (1) the number of hours necessary to turn out a given unit of product, (2) the number of hours worked during a given period of time, and (3) the quantity of the product for which there is a demand. At present, moreover, when any figure for current demand is likely to be more or less subnormal, it may be necessary also to take account of the labor required to supply an estimated normal demand at the actual current output per hour.

If the present demand—actual or normal—for any commodity has expanded since the year with which comparison is made, the labor necessary to supply the increase will have offset more or less any displacement that would have resulted from a higher output per hour, if the demand had remained the same. If there has been a decline in the demand, on the other hand, the resulting loss accentuates any displacement due to the greater productivity of labor.

In the case of the present study the factor of change in the number of hours worked per week can, fortunately, be disregarded, since, as appears from Table 3 there was little difference in the leather industry in this respect between 1931 and 1923. That there was not a considerable decline, in view of the state of business in 1931, is to be explained by the staple nature of the product, and by a tendency on the part of a good many leather manufacturers, on account of slow turnover, to delay adjustment to a contraction in the current demand. Since there was no noticeable decline in hours worked per week, it is sufficient to make comparisons in terms of numbers of employees only.

The figures presented in Table 5 indicate that from 1923 to 1931 there was a gross displacement of labor, in all tanneries manufacturing the five major classes of leather covered by this survey, of some 16,277 men. This gross figure, however, is composed of three items:

(1) A displacement of some 2,693 men was due to the fact that the 1923 production was appreciably above the present estimated normal.

(2) A displacement of some 8,013 men was due to the fact that the 1931 production in a year of depression was decidedly below the present estimated normal.

(3) Finally, the remaining displacement of some 5,571 men was due to the increase in output per hour, figuring the production at the present normal. Only this part of the gross displacement was the result of improved plant, equipment, processes, and management; it therefore constitutes what is commonly spoken of as technological unemployment. To make these figures applicable to the whole tanning industry they should be increased by about 20 per cent. This would bring the displacement for all tanneries, due to greater efficiency, to some 6,685 men.

Technological Conditions Affecting Output

Length of process.—The industry has always been one of slow turnover, due to the length of the process, which still runs to several months in the case of sole and other unsplit cattle-hide leathers. Even in cases where the process is now comparatively short the former conditions still exert a psychological effect.

Chrome tanning is a much shorter process than tanning with vegetable extracts, and use of this method, therefore, shortens the period of manufacture considerably. The kid-leather industry was the first to adopt the chrome process, and in American trade usage the term "kid leather" covers only chrome-tanned shoe stock, the small amount of fancy kid leather tanned with vegetable extracts being known as "morocco leather." Calfskin leather is also made largely by the chrome process; only 1 of the 11 important companies in this branch of the industry manufactures any considerable amount of vegetable-tanned calfskin leather. Most side leather is now tanned by chrome instead of by vegetable extracts, or in successive baths of the two, so that the period of manufacture is much shorter than in the case of sole leather and only a little longer on the average than in the calfskin and kid leather branches. Most of the sole leather manufactured is still tanned with vegetable extracts, the whole process requiring from four to six months. Though there has been a considerable shortening of the process in late years, there is a difference of opinion as to its desirability from the point of view both of economy and of the quality of the product. A few firms of standing and importance have steadily resisted the tendency, but the shorter process (requiring not more than four months in all) is becoming the rule. In Germany the use of wheels or drums for the tanning of sole leather has reduced the period required, in some cases to about two months. Although experiments with this method have been made in America, opinion as to the quality of the leather produced has, on the whole, been adverse. Although one of the larger companies is making considerable quantities of leather by the new method, the chance of any general adoption in this branch of the industry in the near future seems small.

What change has taken place in the length of process in the sole-leather industry has been a factor in increasing output per hour, largely as a result of reducing the number of handlings of the hide. There is some difference of opinion in the industry as to how large a factor in the net increase in labor efficiency during the past few years this change has been. But in most cases it seems to have eliminated the labor of a small number of men only.

Deterioration of material.—During much of the process of manufacture the material passed through a tannery is very liable to deterioration. It is essential that the various operations be performed promptly when the stock is ready. The danger of loss from this cause is especially serious in the sole-leather branch of the industry. Strikes are likely to cause loss out of proportion to the number of men involved or the seriousness of the dispute.

Damage in processing.—The stock is also liable to damage from unskillful or unduly rapid processing. This fact has been a powerful brake on the introduction of anything that can properly be called automatic machinery. Even to-day the great majority of machines to be seen in tanning plants can be operated only by men possessed of considerable skill and long practice.

Raw material used.—Much of the work in tanneries is very heavy. In varying degrees in the cases of the different classes of hides and skins, the stock in process in tanneries is heavy, bulky, wet, and awkward to manipulate. A rather considerable part of the labor, therefore, is involved in the mere handling of stock during and between processes, as distinct from the processing itself. In the sole-leather branch the weight of green hides runs close to 60 pounds apiece and the area is about 40 square feet. The stock in process, consequently, is heavier, bulkier, and more awkward to handle than that of any of the light leather branches of the industry, and the proportion of the total labor required for handling the stock during and between processes is correspondingly higher. Although side-leather hides are lighter than those used for sole leather, the footage per piece is not much less, and the difficulties of handling are somewhat the same. The skins used in the manufacture of calfskin and kid are lighter and therefore easier to handle than the two above classes.

The raw material of leather is relatively expensive and this, with the comparatively long period of manufacture, makes the capital tied up in stock in process particularly large. This fact has a constant tendency to cause a shortage in liquid capital for investment in new plant and equipment. Slowness in installing the latter, moreover, has resulted also from the generally conservative psychology of the industry and from the fact that the greater part of the original mechanical equipment was simple and durable and not subject to very rapid depreciation.

Conditions Affecting Labor Management

ALONG with these technological factors it is necessary to bear in mind certain general conditions which greatly influence the supply and the management of tannery labor.

The labor in American tanneries, even in rural communities, is mainly of late immigrant origin, with a very heavy Polish contingent. There is little difference in the composition of the labor force in the different branches and the different parts of the country.

The fact that a large proportion of the workmen in individual plants, and still more of those engaged in particular processes, are of the same immigrant nationality has tended to the clannishness among them that, in view of the technological conditions just described, has been about as effective for winning small-scale strikes and controversies as an elaborate formal organization of labor could have been, and indeed has to a considerable extent taken the place of the latter.

The size of tanneries in different branches of the industry varies greatly, but the proportion of small tanneries, with an average of less than 200 employees, is large.

The fact that most tannery processes require a considerable amount of skill and experience is accentuated by the frequent lack of any local surplus supply of labor, when output is anything like normal. The main reason for this is that so many of the tanneries are not near communities where there is much other opportunity for employment; thus, when a plant reduces the number of its men without any prospect of early resumption of work, the men laid off are likely to leave the place altogether. In the kid-leather branch, however, owing to the location and concentration of the industry, the supply of labor is fairly abundant and relatively susceptible to handling by ordinary American factory methods. In spite of the value of the skins, the finishing processes on kid are so highly standardized that the premium on skilled labor seems to be somewhat less than in the case of calfskin, for instance.

A good deal of tannery work, especially in sole and other heavy leather plants, is noncontinuous; that is, a workman does something to one pack of hides and then is under no immediate necessity of doing anything else. There is not the incessant stream of material in process associated with the modern American industrial plant.

Most tannery buildings are not only old but in some departments of many plants they are poorly lighted, and of large size in proportion to the number of men working in them.

As a net result of all these conditions, technological and other, there had unquestionably been in American tanneries, up to within the period covered by the present survey, a very general tendency to slackness in the management of labor, and the effect of this had been, of course, to keep the quantity produced per man-hour down to what may be called a subnormal level; that is to say, it would have been normal for the tanning industry at that time, but not so in comparison with American industry generally.

Several reasons combine to explain the fact that this state of affairs has been dealt with only very recently: The generally conservative psychology of the industry; the fear of damage due to strikes and holdups; the fact that the subordinate supervisory forces of tanneries have, with rare exceptions, risen from the ranks of the very same men that they have later been called upon to direct; the fact that the nature of the work in a tannery has tended to bring the technological and production executives into close personal touch with the industrial workmen; and finally, the fact that turnover of labor in tanneries has been low and the average term of service long.

These things combined to create a marked disposition to let well enough alone, with respect to the management of labor, as long as things were not going too badly—which meant, in general, as long as prices of hides and leather were going up.

Causes of Increase in Output per Hour

THE causes that have combined to bring about the increase in output per hour that have developed since 1923 have not been the same in the various branches of the tanning industry, but there has been a general similarity. These causes are discussed below.

New Processing Machinery

New processing machines are, as a rule, the primary cause of what is currently known as technological unemployment. In the tanning industry, however, the part that they have played in bringing about the recent increase in output per hour has been very secondary.

Most of the machines now in use in tanneries had been introduced in much their present form at least 30 or 40 years ago. Allowing for the restrictions on the use of automatic machinery imposed by the physical characteristics of hides and skins, there was, 8 or 10 years ago, relatively little of an obvious nature left to be done in the way of designing new equipment. The chief exceptions to this statement have been the following:

(*a*) The beaming or scudding machine, which is designed to supplement the work of the unhairing machine, in cleaning the finest hairs from the surface of hides or skins.

(*b*) The automatic-feed shaving machine, which has been almost the only variation in one of the older tanning machines to which the adjective "automatic" can properly be applied.

(*c*) The boarding or graining machine, which treats the surface of certain kinds of upper leather in such a way as to produce the characteristic pattern known as boarded or box grain.

(*d*) The seasoning or finishing machine, which assists in the application to the surface of leather of a composition designed to color and fill it in in connection with the final finish. This machine does away only in part with the hand labor of applying the seasoning.

Practically no new processing machinery has been introduced into sole-leather tanneries for many years. The beaming or scudding machine is not satisfactory for this class of hides and the other machines mentioned above can not be used at all. In the side-leather branch new processing machinery has played a more important part than in several other branches, though hardly as much as in the calfskin branch.

Mechanization has been carried farthest in the calfskin and kid leather branches of the industry. In spite of this the amount of skilled hand labor involved in giving the better grades of calfskin leather the necessary finish is so great that the output per hour is not large in comparison with sole or side leather. Though the introduction of new processing machinery has been a secondary reason for increase in output per hour in the manufacture of calfskins, as throughout the tanning industry, it has been of rather more consequence in the case of this class than in that of any other. The beaming or scudding machine has been found more adaptable to calfskins than to cattle hides and, though by no means universal, is coming into wide use. As regards the few other new processing machines that have been mentioned, the situation is much the same as in the side-leather industry.

The kid-leather branch has been completely mechanized (to the extent that this can be said of any class of tanneries) from the outset,

and its output comes nearer being mass production than that of any of the other branches.

Sheepskins are handled by the more important companies in large quantities, and their relative cheapness has made them in some respects very suitable for mechanical manipulation. But the number of different leathers manufactured and, in the case of garment, glove, and fancy leathers at any rate, the variety of types and of colors, has greatly complicated the processes used in sheepskin tanneries, and has tended to give the business of some plants a semi-retail aspect. On the whole, mechanization has been carried quite as far in most sheepskin plants as in the majority of those manufacturing the chief upper leathers.

There is hardly a tannery in the country at the present time which uses these new machines exclusively to carry out the processes to which they are applicable, and there are many which do not use them at all. For this state of affairs there are several reasons, some of which have already been suggested. It is claimed in some quarters that when these machines were first introduced they had not been thoroughly tried out from a practical as distinct from a technological standpoint. Existing machines have often been too satisfactory to be scrapped, considering all the conditions of the industry. The new machines have been, or at least have been looked upon by many individual tanneries, as unsuitable for the treatment of some kinds of hides or skins.

The net part which new machinery has played in the saving of labor in American tanneries, therefore, has been small, despite the fact that individually these machines are capable of effecting large savings.

Improvement in Layout of Tanneries

Most American tanneries are located in old, even very old, buildings, and comparatively few of these at most were designed with any reference to economy of labor. The plants actually built since 1923 have been extremely few, and the number even of those that have been to any considerable extent reconstructed during these recent years has been by no means large. The type of plant layout prevailing in the sole-leather industry is somewhat different from that characteristic of the other branches; but in both types there is ordinarily a considerable amount of motion lost in "back tracking" and in moving the stock in process up and down to load the apparatus used, and in connection with the various dryings required in the course of manufacture.

In the few tanneries that have been built or drastically reconstructed since 1923 a good deal of improvement has been made in these respects, and with a resulting contribution of importance to the increase in output per hour. But there is no reason to think that any very large part of the increase realized in the industry can have been due to this cause.

Handling Machinery

Handling machinery is of importance chiefly in the case of heavy leathers. Of the sole-leather plants covered by the survey, at least half and probably more have made extensive installations of equipment to save labor in handling their hides during and between proc-

esses. These most often take the form of traveling cranes or monorail conveyors, more or less covering the hide house, beam house, tanyard, and scrub or bleach house; of belt or bucket conveyors or power trucks for handling hair and glue stock; and of false bottoms and similar devices to facilitate the charging and discharging of vats and wheels. The labor saving effected by these installations has been considerable; but by no means all of them have been made since 1923, and there is no very high correlation between their extent and the outputs per hour of individual companies. On the whole, therefore, they can not be looked upon as a major explanation of increases in the latter, though they have certainly helped greatly in some cases.

In the side-leather branch some noteworthy advances in the installation of handling machinery have been made, but they have not been widespread enough to be a large factor in accounting for the large increases in man-hour output. Little attention to handling machinery has been given in the calfskin and kid leather branches of the industry as the skins are not heavy or bulky.

Per Cent of Capacity Operated

In most industries, probably, but particularly in those whose turnover of material is as slow as in some branches of tanning, the amount of labor required to keep production going on at all is somewhat out of proportion to the amount produced. When the latter falls below a certain percentage of capacity, therefore, there is some tendency for output per hour to decline.

This question has been gone into with considerable care, with the result of making it highly improbable, if not indeed impossible, that any material part of the net increase in output per hour for the leather industry at large could be explained on this ground.

In any given plant or group of plants there has not, as a rule, been much change in capacity since 1923, and a change in any given item of production from that year to 1931 has therefore tended to mean a roughly correlated change in the per cent of capacity in operation. But, though the 1931 output of the plants for which 1923 data were obtained can not be figured as more than 3 or 4 per cent above their 1923 production, the output per hour of every class except sheepskins showed an increase from 1923 to 1931 of from 13 to 21 per cent. In the case of sheepskins the production covered by the survey increased about 15 per cent from 1923 to 1931 but the output per hour remained practically unchanged.

Other statistical comparisons which lack of space makes it impracticable to set forth in detail confirm this negative conclusion. Undoubtedly changes in the per cent of capacity in operation have been of importance in influencing output per hour in individual cases, and in a year of very subnormal production (conceivably, for instance, in 1932) they might have a material net effect on the industry at large. But as a factor in the increase appearing in the tables in this report such changes have been of minor consequence.

Variations in Types of Product

No one of the principal branches of the tanning industry produces a single standardized product. The proportions of the various types represented by any large item of production, moreover, tend to shift—

sometimes at pretty short intervals—both in the case of individual concerns, and because of the varying shares of the available business secured by companies that maintain certain proportions in their own cases as a policy. The outputs per hour for these various types of product at a given time are by no means the same, and the shifts just mentioned, in theory at least, may affect the comparability of the figures a good deal.

However, it really depends on the point of view whether figures for output per hour are misleading unless the effect of these changes in types of product has been allowed for.

If one is interested primarily in the effect of changes in output per hour on employment, a man displaced is a man displaced, regardless of whether his disappearance is due to a new machine, to a new process, to more efficient management, or to a new type of leather. The only question that arises here is whether the change in type of product is likely to be permanent or is merely a temporary fluctuation.

If, on the other hand, one is concerned chiefly with changes in labor costs, as persons in the industry itself naturally are, it is of course true that any part of such changes due to shifts in types of product is not a matter of labor efficiency, and that in ascertaining the degree of improvement in the latter an allowance should be made for this irrelevant factor.

Improved Management of Labor

A consideration of the causes of increase in tannery output per hour leads to the conclusion that the principal cause of the increase has been the improved management of labor and the accompanying taking up of slack in the expenditure of the time of the labor force.

Improvements of this latter sort do not lend themselves to statistical study; but there is ample nonstatistical testimony to support the statement just made. Indeed, in a majority of the tanneries visited for the purposes of the survey, it was hard to find evidence that any cause other than the stricter and more intelligent management of labor had played any part at all in increasing the output per hour.

As regards the methods whereby this improvement in labor efficiency in the tanning industry has been effected, there have been a few important cases of the bringing in of consulting industrial engineers and of the adoption of elaborate premium scale systems. Even where the latter can not be said to be in use, bonuses have often played a part of consequence in stimulating effort. But on the whole the characteristic procedure has been merely for company officers, superintendents, and industrial engineers already on the ground to apply their attention to minimizing the waste and loss of time. The comparatively small size of most tanning plants and the specialized character of the production problems have both emphasized this approach. It has been a question not so much of introducing new things as of grappling with obstacles to increasing the output per hour that had long been underrated and ignored.

To the best of the writer's belief, this overhauling of labor management in tanneries has been accomplished without anything that could fairly be called exploitation of the employees. It has been mainly a question not of pushing output per hour up from a level already more or less normal, but of getting it up to a level deserving that name from an abnormally and unnecessarily low one.

Extent and Methods of Spreading Work

By William J. Barrett, of the President's Organization on Unemployment Relief

CURRENT interest in increasing employment through further spreading of work has brought up the question as to the extent to which industry and business can add to their present organizations. There is abundant evidence that labor has gone to great lengths in reduced incomes, and management has undergone increased costs in providing employment for additional workers. Some companies have been more fortunate during this period and have been able to maintain operations at relatively high levels. Among such companies lie the best possibilities of adding more workers.

From time to time the President's Organization on Unemployment Relief has sought information on the extent of the spreading of work and the methods used for spreading or increasing employment. In the early part of March, 1932, a questionnaire on this subject was sent to some 25,000 [1] companies whose rated capitalization in 1929 was $100,000 or more. Returns were received from 6,551 of these companies. The results of this investigation show how industry and business in their respective branches have spread employment, and indicate where the possibilities for further spreading are most promising.

The 6,551 reporting companies, representing all sizes and practically every type of industry and business, in 1929 employed 3,475,870 persons at a weekly pay roll of $104,461,727. During the pay-roll period ending nearest March 15, 1932, these companies employed 2,547,901 persons at a weekly pay roll amounting to $60,626,129. This represented a decrease of 26.7 per cent in employment and of 42 per cent in pay roll.

On March 15, 1932, of those employed, 1,428,116 (or 56.1 per cent) were on part time. These part-time workers were employed, on the average, 58.7 per cent of full time.

Of the companies reporting, 1,673, or 25.5 per cent, were working full time, while 1,842 companies, or 28.1 per cent, were working five or more days per week.

The proportion part-time employees form of all present employees varies from 84.9 per cent in the machinery and rubber groups to 20.4 per cent in commercial establishments.[2]

The proportion of companies operating at or near full time (five days or more per week) varies from 70.3 per cent in the commercial group to 13.5 per cent in the machinery group.

"Reduced days per week" was the method most commonly used for spreading or increasing employment, and 3,857, or 58.8 per cent of the 6,551 companies, reported they were using this method.

An analysis of the returns by industries shows a wide variation in the extent to which work has been spread. Within industrial groups

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[1] The list of 25,000 companies was secured from the policyholders' service bureau of the Metropolitan Life Insurance Co. Printing and mailing of the questionnaires was carried out by the Department of Commerce. Tabulation of the returns was made by the Bureau of the Census under the supervision of G. B Wetzel and W. B. Cragg of that bureau.

[2] The industrial groupings correspond with those used in the Census of Manufactures of 1931 with the exception of the following: Tobacco (which includes tobacco and its products); commercial (which includes banks, insurance companies, etc.); public utilities (which includes gas, electric, and telephone companies); retail and wholesale (which includes those whose principal activities are the selling of goods); steam railroads (which includes all the activities of such companies); electric railways (which includes all the activities of such companies).

whose composite returns show further possibilities of spreading work, there are companies which have done excellent work in giving employment to many more persons than present production requires. In the capital goods industries—one of the groups affected most severely—there have been some notable examples of work spreading. The following are excerpts from letters illustrative of the extent to which some companies in this group have gone in this practice. Thus, one company states: "Our volume is only about one-seventh of normal (normal volume $80,000,000 per year) and our aggregate personnel about one-fourth of normal, much of it working a very small portion of the time." Another company in this group remarks as follows:

> Owing to the unusual situation that has confronted us the past two or three years, we have found it necessary to reduce the number of hours some of our departments are operating to a point where the earnings of employees in departments so affected are hardly sufficient to enable them to meet living expenses. We have even gone so far as to delay putting into operation equipment that would reduce our costs very materially and that at the same time would throw some of our employees out of work. At the present time we are limiting all of our employees, with exception of those on the salaried pay roll, to 30 hours per week, and it has been unnecessary for us to hire extra employees even after making this maximum 30-hour weekly schedule effective.

An examination of the analysis of returns by industries, shown in Table 1, reveals that some groups, although severely affected by the drop in operations, have endeavored to spread available work over relatively large numbers of their employees. The machinery group is a case in point; here the decrease in employment has been 36.2 per cent, but the companies reporting have spread work so that 84.9 per cent of present employees are given part-time employment. In the case of some of the other groups there are apparent possibilities for further spreading of employment.

TABLE 1.—PER CENT OF DECREASE IN EMPLOYMENT AND PAY ROLLS, AND PROPORTION OF FULL TIME WORKED IN SPECIFIED INDUSTRIES IN PAY-ROLL PERIOD ENDING NEAREST MARCH 15, 1932

Industry	Number of companies reporting	Per cent of decrease since 1929, in—		Per cent of workers on part time	Per cent of full time worked by part-time workers	Per cent of companies on 88 per cent or more of full time[1]
		Employment	Pay roll			
Food	607	3.6	14.6	26.6	62.3	42.0
Textile	853	18.9	38.8	50.1	61.0	36.5
Forest	773	36.5	57.0	62.8	58.0	26.4
Paper	320	18.7	34.6	51.2	66.9	38.1
Printing and publishing	119	10.0	14.9	41.3	61.4	37.8
Chemicals	430	14.2	24.2	45.1	63.4	53.2
Petroleum and coal	53	24.7	31.6	50.1	58.2	30.2
Rubber	44	29.6	51.2	84.9	67.3	22.8
Leather	200	9.8	26.4	43.5	62.2	33.0
Stone, clay, and glass	375	38.8	56.0	67.9	52.7	14.7
Iron and steel	694	31.2	60.6	79.3	55.9	15.0
Nonferrous metals	313	33.4	51.6	73.1	60.9	20.8
Machinery	980	36.2	55.4	84.9	54.1	13.5
Transportation equipment	165	25.9	43.8	63.5	62.1	27.0
Tobacco	59	[2] 1.0	21.4	35.2	71.0	44.1
Commercial	94	16.1	24.7	20.4	55.4	70.3
Public utilities	120	20.4	21.7	55.3	60.4	39.1
Retail and wholesale	338	25.8	38.0	31.2	59.2	40.8
Steam railroads	11	36.6	47.0	22.3	61.7	18.2
Electric railways	3	2.0	5.0	4.0	75.0	66.7
Total	6,551	26.7	42.0	56.1	58.7	28.1
Manufacturing companies only	5,985	26.6	46.7	63.0	58.5	26.5

[1] I. e., 5 working-days or more.

[2] Increase.

Table 2 shows the average size of the plants reporting in each industrial group on the basis of reported 1929 employment.

TABLE 2.—AVERAGE SIZE OF PLANTS REPORTING, ON BASIS OF 1929 EMPLOYMENT

Industry	Companies reporting	Number of employees		Industry	Companies reporting	Number of employees	
		Total	Average per company			Total	Average per company
Food	607	153,345	253	Transportation equipment	165	278,651	1,690
Textile	853	261,810	306	Tobacco	59	17,669	300
Forest	773	118,429	153	Commercial	94	11,395	121
Paper	320	68,928	216	Public utilities	120	598,337	4,900
Printing and publishing	119	30,448	256	Retail and wholesale	338	15,578	46
Chemicals	430	105,673	246	Steam railroads	11	466,195	42,300
Petroleum and coal	53	79,941	1,509	Electric railways	3	22,667	7,560
Rubber	44	57,429	1,305				
Leather	200	77,895	389	Total	6,551	3,475,870	530
Stone, clay and glass	375	104,045	278				
Iron and steel	694	386,405	557				
Nonferrous metals	313	107,401	343	Manufacturing companies only	5,985	2,361,688	394
Machinery	980	513,629	524				

Methods of Spreading or Increasing Employment

THE methods of spreading or increasing employment used by the 4,926 companies reporting their methods were distributed over 10 major groupings. The statement below shows the number of companies reporting the use of each method.

Method of spreading work:	Number of companies reporting use of method [1]
Reduced days per week	3,857
Reduced hours per day	2,336
Shorter shifts in continuous operation	380
Alternating shifts or individuals	1,338
Rotation of days off	1,170
Method of increasing employment:	
Maintenance and repair	1,290
Construction	278
Production for stock	1,177
Development of new markets	959
Development of new products	1,020

Table 3 shows the prevalence of each method of spreading or increasing employment in each industrial group. The number of companies reporting is less than the total, as some failed to signify the method used.

In reply to the question as to future employment, over 10 per cent of the companies reporting in the survey replied that they expected to add to their forces during the next few months. The remainder either did not answer this question or expected no additional employment.

This survey shows large proportions of our industrial establishments utilizing the spreading of work for the maintenance of employment. It points to certain portions which have gone to great lengths in sharing employment, and also indicates that in certain other sections of our industry and business this practice of spreading

[1] The total number exceeds the total number of companies because many of the companies reported the use of two or more methods for spreading or increasing employment.

employment may be extended. Such industries could be approached and encouraged to increase employment where possible, but perhaps the most effective means of adding to present employment would be for each community to make a check of the possibilities within its own industries and businesses.

TABLE 3.—METHOD OF SPREADING OR INCREASING EMPLOYMENT, BY INDUSTRY GROUPS

Industry	Number of companies reporting	Number of companies using specified method									
		Reduced days per week	Reduced hours per day	Shorter shifts in continuous operation	Alternating shifts or individuals	Rotation of days off	Maintenance and repair	Construction	Production for stock	Development of new markets	Development of new products
Food	392	260	122	17	77	87	131	32	45	86	66
Textiles	589	437	199	57	143	148	96	14	151	136	145
Forest	593	460	361	27	137	104	151	41	156	125	105
Paper	248	186	95	22	60	57	63	21	56	51	50
Printing and publishing	90	53	49	6	18	31	7	3	6	9	6
Chemicals	268	201	121	26	55	66	105	22	83	62	67
Petroleum and coal	33	23	7	3	10	11	11	12	7	6	3
Rubber	38	31	20	11	9	12	12	5	7	9	13
Leather	141	106	78	12	22	19	22	4	44	37	34
Stone, clay, and glass	310	228	117	47	111	59	105	21	82	49	50
Iron and steel	516	515	329	46	190	142	153	29	149	110	149
Nonferrous metals	272	229	144	19	70	79	59	7	65	38	54
Machinery	887	755	481	55	294	221	240	21	252	165	217
Transportation equipment	132	105	76	9	41	28	36	4	30	21	36
Tobacco	39	30	13	6	3	4	2	------	10	7	6
Commercial	49	30	14	1	12	13	12	6	4	9	3
Public utilities	78	60	17	6	19	21	22	17	1	4	1
Retail and wholesale	237	136	91	10	65	63	63	19	29	35	15
Steam railroads	11	10	2	------	2	4	------	------	------	------	------
Electric railways	3	2	------	------	------	1	------	------	------	------	------
Total	4,926	3,857	2,336	380	1,338	1,170	1,290	278	1,177	959	1,020

EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Federal Unemployment Relief Law

THE Federal emergency relief law (Public Act No. 302) became effective July 21, 1932. The law was enacted for the purpose of relieving destitution, to broaden the lending powers of the Reconstruction Finance Corporation (Public Act No. 2, approved January 22, 1932), and to create employment by the execution of public works.

The capital of the Reconstruction Finance Corporation was increased $1,800,000,000. By the provisions of Title I, for the relief of destitution, the Reconstruction Finance Corporation is authorized to make available the sum of $300,000,000 to be used in the States for the relief of people in need due to unemployment. The governors of the States have two years in which to make application and are held responsible for the administration of all allotted moneys. No State may receive more than 15 per cent of the total available sum. Interest for such loans is fixed at the annual rate of 3 per cent. In the application for funds the governor of the State must certify to the necessity for funds and that the resources of the State are inadequate for relief needs. Payments to any city or municipality are deducted from the State allotment and must also be certified.

The balance of the loans ($1,500,000,000) may be used to finance self-liquidating public and private construction projects and the financing of agriculture through credit corporations, as provided in Title II of the act.

The Reconstruction Finance Corporation is therefore authorized to lend money for the following objects: (1) Projects undertaken by States and political subdivisions; (2) corporations formed for the purpose of providing homes for people of small means, or for the reconstruction of slum areas, under public regulation; (3) private corporations organized for the construction, etc., of bridges, tunnels, docks, etc., devoted to a public use; (4) private dividend corporations formed to aid in financing projects for the protection and development of forests and other natural resources regulated by the States; and (5) the construction of any publicly owned bridge for railway or highway uses. All of the loans must be made for projects of a self-liquidating character—that is, the project must be made self-supporting and financially solvent—and assurance must be given that the construction cost will be returned within a reasonable time by means of rents, tolls, fees, or other charges. Loans to the States are to be made through the purchase of their securities. The Reconstruction Finance Corporation is authorized to bid for such securities and to purchase any public bond issued for the purpose of financing the construction of any bridge. The corporation may also make loans for the purpose of financing sales of surpluses of agricultural products and of enabling institutions organized by law to finance the marketing of agricultural products and livestock. Regional agricultural credit

corporations may be created in any of the 12 Federal land-bank districts.

All loans must be fully secured, and may be made for a period not exceeding three years, except that in some cases loans for a longer period may be made whenever deemed advisable by the board of directors. Loans by the corporation may be made until January 23, 1934. Loans to railroads must be approved by the Interstate Commerce Commission. Applicants for a loan are not required to pay any fee or commission, and any agreement to pay such a fee is unlawful.

Monthly statements are required to be made to the President and Congress, showing the names of all borrowers and the amount of the loan, with the rate of interest.

The membership of the corporation consists of the Secretary of the Treasury (member ex officio) and six other persons appointed by the President. The Secretary of the Treasury is authorized to market for the corporation any notes, bonds, or other obligations. In unusual circumstances the Federal reserve banks may discount eligible paper for individuals and corporations, provided such person is unable to secure adequate credit accommodations from other banking institutions.

Title III of the law provides for the emergency construction of certain public works. An appropriation from the Treasury of $322,224,000 is allocated as follows: (1) Federal highway construction, $120,000,000; (2) construction of national forest highways, $16,000,000; (3) river and harbor projects, $30,000,000; (4) flood-control projects, $15,500,000; (5) continuation of construction on Hoover Dam, $10,000,000; (6) air-navigation facilities, $500,000; (7) lighthouse equipment, etc., $950,000, and navigation projects, $2,860,000; (8) Coast and Geodetic Survey projects, $1,250,000; (9) Bureau of Yards and Docks engineering work, $10,000,000; (10) construction of public buildings outside the District of Columbia, $100,000,000; (11) construction of necessary buildings at military posts, $15,164,000.

With the exception of the amount available for the construction of federally aided and national forest highways, the act provides that none of the other sums appropriated shall be expended unless the Secretary of the Treasury certifies that the necessary funds are available or if not available may be obtained upon reasonable terms. In addition to the above appropriation, $7,436,000 is also provided for the construction, etc., of technical buildings at military posts, airports, and landing fields.

Among the features provided in the unemployment relief law of particular interest to labor are the prohibition of convict labor upon all construction projects, the limitation of 30 hours per week upon such projects, and the preferences granted to qualified ex-service men with dependents. In addition to these features, provision is made in the section of the law relating to the construction of Federal-aid highway systems that all such contracts must contain provisions establishing minimum rates of wages. Such rates are to be predetermined by the State highway department. They are to apply to skilled and unskilled labor. The minimum rates must also be stated in the invitation for bids and included in all proposals or bids for the work.

The membership of the Reconstruction Finance Corporation includes Atlee Pomerene, Ohio, chairman; Ogden L. Mills, New York;

Gardner Cowles, sr., Iowa; Wilson McCarthy, Utah; Harvey Couch, Arkansas; Jesse Jones, Texas; and Charles A. Miller, president, New York.

Gardens for Unemployed Workers

THE movement on the part of industrial establishments to assist employees on furlough or whose incomes are much reduced to provide food for their families through the planting of gardens has spread to many parts of the country. Prominent among the organizations which have adopted this means of assistance are the railroad systems of the country, many of which gave special encouragement and aid to employees in planting such gardens last year. The movement is not a new one among the railroads, as in the past many companies have supplied the land and other material assistance to employees who wished to avail themselves of this opportunity to supplement their income; during the present depression, however, this means of helping employees to help themselves has received increasing attention.

A survey by the President's Organization on Unemployment Relief showed that more than 40 of the railroad systems of the country either had followed for some years the practice of encouraging employees to plant gardens on land owned by the railroad or had signified their intention of doing so during the present emergency. A few companies reported that there was no disposition on the part of the employees to take advantage of this opportunity or that the system ran through country in which land was readily available for gardening purposes. In two instances it was reported that it was the practice of the company to charge a nominal rental for the use of the land, but in general the land was free not only to employees of the company but in several instances also the companies were willing to extend its use to other persons in the different communities. In a few instances the work of promoting the use of the land for garden purposes is being carried on either by a special department organized for that purpose by the railroad or through the charitable or welfare agencies of different localities.

In northern Indiana, where many of the steel mills are shut down or working part time, there has been a "back-to-the-land" movement promoted by business organizations, relief agencies, and the University of Indiana. It is reported that 43,900 gardens are under cultivation in 45 communities. Business and industry have united in providing the land and in bearing the expense of preparing the ground, while seeds and equipment have been given by citizens; penal institutions have furnished small plants, such as tomatoes and cabbage grown in their greenhouses for transplanting, and county agricultural agents have tested soils and given expert supervision. In some of the garden developments, financed entirely by industry, the gardeners receive cash or credit toward necessaries, and in other cases the work carries the right to additional supplies. Winter as well as summer supplies are obtained in this way, as schools, churches, and even fire and police departments have been temporarily turned into canning centers.

A "balanced work and food production plan" was started in the Ford plants in the spring. In connection with the announcement of

the plan, Mr. Ford said, "Everybody will be better off if the workers devote part of the time saved by mass production of machines and other products of industry to producing their own food—they will be healthier and happier, and by producing a large share of their food at wholesale costs by their own labor the reduced earnings due to shorter hours will be offset." Several thousand acres of land were made available, and it was estimated that at least 50,000 gardens in the Detroit area would be producing foodstuffs this summer for Ford families. Each plot of ground is large enough, it was estimated, to yield a year's supply of vegetables for a family.

The B. F. Goodrich Co., Akron, Ohio, established one of the large cooperative gardening projects of the country last spring. A 275-acre garden was laid out and the project, organized as a nonprofit organization under the name of the Akron Community Gardens, received a charter from the secretary of state. The primary purpose of the project is to provide opportunities for men on part-time work and those not employed to assure their families an adequate food supply by utilizing idle time. Workers will receive shares of the produce in proportion to the time they spend in raising it.

The Batcheller Works of the American Fork & Hoe Co., located at Wallingford, Vt., has attempted to lessen the hardship of the depression for employees of the company by organizing the "cellar full of food" club. The object of the club will be to provide food supplies for the winter, and with that end in view the members will raise such vegetables as lend themselves readily to canning and storage. According to the plan, members will make a small contribution into a common fund to finance the initial expense of plowing, purchase of seeds, etc., but those unable to pay this will be allowed to sign a work pledge at a fixed rate of wages per hour, and when the amount of the pledge has been worked out the employee will be entitled to share equally with employees who have paid cash. Accurate records of the time spent by each member in the labor of planting, cultivating, and harvesting the crops, kept by a timekeeper and clerk, will form the basis for the division of the produce at the end of the season, while members who contributed cash but did not work in the garden will receive their share figured on the basis of the cost of labor at a fixed hourly rate.

The United States Steel Corporation, in addition to a program for spreading work which has kept the force of 220,000 workers largely intact and the carrying out of various relief measures, has promoted the planting of both home and community gardens by the employees. Under the gardening plan the corporation has succeeded in furnishing a garden plot for every employee who expressed a desire to grow his own vegetables. The number of gardens totals 73,511, of which approximately one-third are small gardens and two-thirds community gardens. The estimated value of the garden produce for this year is nearly $1,840,000. Skilled instructors have been provided to teach housewives how to can fruits and vegetables for winter use and the program has been extended to teaching the housewives the almost forgotten art of home baking of bread—an economy measure favored by the low prices of flour.

Among the many instances in which cooperative gardens have been successfully developed may be mentioned such developments in Birmingham, Ala., where more than 100 Red Cross and community gardens are being planted and cultivated by the jobless; Memphis,

Tenn., where city and county officials established a garden society which has unemployed men raising foodstuffs for canning; and Atlanta, Ga., where a county-managed plan will provide work for the jobless and supplies for destitute families next winter. Under the plan in the latter city men work two days each week and each man receives a week's rations for himself and his family. A Georgia banker, Mills B. Lane, offered the use of 4,000 acres of land, rent free, to unemployed who would plant farm crops, and he suggested that modest homes could be erected for persons who would agree to plant quick-growing crops which would put them on a self-sustaining basis. In North Carolina many organizations have assisted in getting the jobless back to the farm, as the population of the State is largely rural, and the farm program of the last four years is said to have resulted in a generous supply of reserve food. Kentucky miners to the number of 20,000 have taken up the raising of produce and chickens, cows, and hogs with the support of the Society of Friends (Quakers) which took funds left over from war-time relief for the purpose. In Nebraska 500 needy veterans were assisted to start the growing of gardens by the American Legion, and in one county alone in Iowa 6,000 persons were put to work. In Cleveland, Ohio, 2,890 gardeners not only obtained food but won prizes for the best-looking and highest yielding crops.

Unemployment Relief Plans of Philadelphia Trade-Unions

IN February, 1932, the department of social economy and social research of Bryn Mawr College, in cooperation with the Central Labor Union, made a study of the measures taken by 30 Philadelphia labor unions to assist their membership during periods of unemployment.[1] The study discloses that 34 per cent of the membership in one group, the International Union of Operating Engineers, had full-time employment and that the remaining groups reported from 2 to 30 per cent of their membership working full time. Complete unemployment was recorded for 97 per cent of members of the Carpet Workers' Union, for 91 per cent of the membership of the Bricklayers' Union, 90 per cent of Rod Workers' Local No. 405, and 80 per cent of the Bridge, Structural and Ornamental Iron Workers' Local No. 401.

Regular contributions to cover the cost of unemployment relief were required in 15 of the 30 unions, varying widely in amount. Electrical Workers' Local No. 98 reports an assessment amounting to 10 per cent of the first four days' earnings and 50 per cent of all earnings for time worked in excess of four days. Newspaper Pressmen's Local No. 16 placed its assessment at one day's earnings out of six.

Twelve unions are listed as giving fixed benefits. Of this number, 8 pay sums ranging between $4 and $10 weekly, 1 sees that the unemployed person has one day's work weekly, 1 supplies coal and groceries, and 2 do not state the nature of benefit supplied. In addition to paying cash benefits the American Federation of Full Fashioned Hosiery Workers supplies coal, gas, and other items.

Other aid furnished is classified as "loans" or "relief." Loans of dues are made by two local unions and in money by two others, the amounts of cash loans allowed being $25 and $150, respectively.

[1] American Federationist, June, 1932, pp. 640-51: "Unions and their unemployed."

Relief in the form of dues is reported for 6 locals; when the need arises, for 7; to cover insurance, for 2; for carfare, 1; and at Christmas, 2.

Balances in treasuries are reported in only five cases, the amounts ranging from $400 to $7,000. The expenditures reported exceed $215,000, but not all unions have stated what sums have been spent.

Company Loan Plans for Unemployed Workers

A RECENT report by the industrial relations section of Princeton University covers the relief measures which have been developed among various companies to meet the need for assistance among workers created by the depression.[1]

Notwithstanding the fact that unemployment is an increasing problem in nearly all American industries, the experience gained since the beginning of the depression has resulted in the development of relief programs which are great improvements over the emergency measures adopted early in the depression. Many companies are now taking steps to prevent distress among laid-off or part-time employees, and the experience already obtained affords an opportunity to make plans for a balanced program adapted to the degree of unemployment which may occur. In spite of the increasing use of measures for spreading work, such as reductions in working hours, however, it is probable that the winter slump in many industries will throw a more serious burden than ever before on public, private, and company relief, and the relatively small amount of public funds available for relief will probably result in renewed appeals to responsible employers to take care of their regular employees during the coming winter. During the past two years many companies have developed plans to meet this need for temporary assistance to regular employees by granting loans or credits to such men, to be repaid when earnings again approximate the normal.

Among the formal plans adopted in which funds have been set aside for making the loans there are certain general points of similarity, although there are differences resulting from the pressure of local conditions. In general the funds are furnished by the companies, but in some cases a joint fund is formed by contributions by officers and by employees of the company who are still on the pay roll and an equal contribution by the company. The relief loan fund of the Southern Pacific Co., for example, was raised by pay-roll deductions of 1 per cent of actual earnings of officers and employees for a period of from four to five months, supplemented by an equal amount paid by the company, while a fund consisting of half of an extra dividend was set aside in 1931 by the General Tire & Rubber Co. for use in stabilizing employment and furnishing loans to unemployed workers.

The operation of the loan funds is generally in the hands of the company, being administered by the personnel manager or other officers, but in some instances the employees are represented in the management. Examples of joint management are found in the International Harvester Co., where representatives of the works council are members of the committee in charge of the relief and loan fund at each plant of the company, and in the General Electric Co. The unem-

[1] Princeton University. Industrial Relations Section. Company loans to unemployed workers. Princeton, N. J., 1932.

ployment benefit plan of the latter company contains a provision for loans to employees, the loan plan being administered at each works by a board composed of representatives of the employees and of the company. In still other cases the plans are handled in cooperation with the mutual benefit association. Regardless of whether the plans are administered by the employer alone or jointly by employer and employees, it is essential in this as in other types of money lending, that careful investigation of requests for loans should be made. As the loans are granted on the basis of need, as well as of the ability to repay, there has been a tendency to adopt something of the technique of the social worker in determining the family needs.

Orders for groceries and other necessaries may take the place of money loans, in which case their cost is considered the amount of the loan. If the company has a store, such amounts may be charged to the employee's store account, but one company was of the opinion that it was better to deal with local merchants in such cases even though a considerable saving could be made with the company doing its own purchasing. One company, the Studebaker Corporation, makes grocery loans through the manager of the factory cafeteria. Medical aid and medicines are also among the items of assistance furnished on credit or without charge through the medical department.

Usually there is a limit to the amounts which may be lent to an individual, the maximum ranging, in general, from $50 to $200. It is not thought well that too large loans should be made, since they leave employees too seriously involved when normal conditions return. Companies having unemployment benefit plans make loans only to workers who for some reason, such as lack of service, are not eligible for unemployment benefits or who have exhausted their right to such benefit. After the maximum loan has been allowed, the only recourse left is to secure assistance from company or public relief funds.

Usually no interest is charged on company loans, but in the few cases in which it is charged, provision is made that the interest shall be paid through a salary reduction after the loan itself has been entirely repaid. Loans are repaid by deductions from the pay only after the worker is receiving a sufficient amount of work to be able to afford it, the usual rate of deduction being 5 to 10 per cent of pay.

In summing up the study, the report states that although emergency loans have their limitations they are of very great value in helping the class of employees it is hardest to reach, that is, the usually independent workers who are unaccustomed to charity. Such employees are the mainstay of an organization and the ones whom it is most desirable to protect from the demoralizing effects of a long period of unemployment, so that everything which can be done to uphold their morale and help them keep their independence is well worth while.

Although many plans provide for repayment it is a question whether a large proportion of the loans can be repaid. In many cases it is evident that repayment will be practically impossible and that the loans will have to be written off. However, in these cases it is probable that the same amounts would have been advanced as relief. In some instances employees may have relocated elsewhere and it may be useless for the company to attempt to collect, while in other cases a long period of unemployment will have piled up a heavy burden of obligations which will have to be met when earnings start again, so that even with the best intentions employees may be

unable to repay the loan for some time. On the other hand, the almost inevitable loss of morale through unemployment may lead to more or less indifference toward the obligation. A number of companies having such plans, however, have found a general disposition among those who could do so to meet their loan obligations, while some companies state that the loan privilege has been abused in a few cases, and suggest that the remedy lies in more careful investigation and, if necessary, in withdrawal of further help. Several plans have service requirements of approximately one year or more, which somewhat limits the number eligible to loans, but if the requirement is not too high it seems reasonable for companies to feel that their greatest responsibility is to workers who have been with them long enough to become a permanent part of the organization.

In conclusion it is said, "It remains to be seen how long companies will feel that it is possible for them to continue to make loans to laid-off employees. As time passes, the problem of relief becomes more insistent and the difficulties in the way of loan repayment, greater. Where possible, employees will make more or less permanent adjustments to changed conditions. In case they find other employment in which they are able to support themselves, the company's problem of either loans or relief is at an end, so far as they are concerned. As the depression produces permanent changes in business activity and employment, and new industries develop and some old ones decline, individual adjustments are bound to follow. During the interval before this becomes possible, assistance of some kind is a compelling necessity in easing the burden of unemployment."

Plan for Providing Work for Unemployed in Ventura, Calif.

AN ACCOUNT is given in The American City, July, 1932 (pp. 71, 72) of the plan for self-help adopted by a group of unemployed citizens of Ventura. Because of the restrictions governing the relief agencies of the city many of the worthy unemployed could not receive assistance, and a group of such persons, recognizing the possibilities available for relief, developed a plan by which many of the necessaries of life were provided.

The members of the group first obtained the use of some vacant store buildings and a partly furnished vacant restaurant. The places were cleaned and the restaurant became the headquarters for the community center. The climate and soil in Ventura being favorable for growing crops all the year round, the use of vacant lots was solicited and the center agreed to clear away weeds and plant and cultivate vegetable gardens on the lots. The city furnishes water for use on all the garden lots and the center furnishes the worker with free seed providing he cooperates with the center and does not use his crop as a commercial venture. Each man given a lot to farm must keep it neatly cultivated throughout the agreed farming period. At the time the article was written 142 lots had been donated and 125 of them were already planted to vegetables.

There are rich oil fields in the neighborhood of Ventura which once employed many workers who made their homes in the city, but during the past two years employment at the wells has been much reduced and there are now many vacant houses. Needy families have been housed in these places upon their agreement to keep them

up. Single persons are given their meals at the community kitchen and those with families are given food to take home. In return for assistance given, the center requires some form of service from those aided. During the first six weeks of operation 4,033 meals were served by the community kitchen at a total cost of $96.65, and in addition food was given to destitute families. The low cost of the food, averaging less than 2½ cents a meal, is in part the result of the collection and salvaging of unsalable foods from merchants and ranchers. Very few donations of cash have been received by the center, the entire amount being only about $20. If the members secure any outside work, they accept anything of value in return for their labor, and if it is something they can not use they exchange it for service tickets at the center, which are redeemable only at the center and for the necessaries of life. If a worker receives cash for outside work, however, the money belongs to himself, although usually, it is said, it is shared with the center. The articles which members have received in exchange for labor include poultry and livestock, trees, and plants of various kinds. The center has given emergency relief to many destitute families, and the needy have been supplied with donated clothing and shoes which have been cleaned and mended by the woman workers.

As the community center is not licensed it can not lawfully hold property and whatever service tickets are on hand, therefore, at the end of the week must be divided among the workers so that over the week-end the center does not own anything. This weekly division will have to be continued until the center becomes an official organization. However, business men and city officials are now studying the best ways in which to arrange the future of this organization. Plans are also being made for the establishment of a cooperative market where produce can be sold or exchanged, but for the present the country merchants will provide for the marketing of the surplus products. It is estimated that 50 tons of foodstuffs will be produced on the lots under cultivation this year.

Bartering of Services Among the Unemployed in Los Angeles

AN ACCOUNT by Pauline G. Schindler of an experiment in the cooperative exchange of services which is being tried in Los Angeles is given in The Survey, July 15 (p. 329).

The Cooperative Exchange, which has been operating some months, is the medium through which this exchange of the services of skilled and unskilled workers and members of the professional classes may be arranged. "When the unemployed carpenter needs a dentist," the writer says, "and the unemployed dentist needs a truckman, and the unemployed truckman needs a plumber, and the unemployed plumber closes the circle by needing a carpenter, and none of them has the money to pay the other, bartering of services seems to be a logical resort." The exchange has demonstrated that, given a sufficient number of applicants and a sufficient variety of services, a clearing house for the abilities and energy of such persons may be very valuable both to the individuals benefiting by it and to the community.

The exchange is a nonprofit enterprise but so far has found it necessary to charge 10 per cent of each accomplished exchange to

meet operating expenses. This charge is in terms of service. Applicants are supposed also to pay a registration fee of 50 cents but there are many exceptions to this rule and payment is frequently postponed, waived, or paid for in service. Under less experimental conditions or with a greater volume of interchange, it is said these amounts could be materially reduced. The staff of the exchange is also paid in exchange credits. Each applicant upon registering states the service he has to give and the service he wishes in return, and a filing system, cross indexed by names and by services, shows at once what opportunities for the exchange are available. A system of accounting somewhat similar to that of a bank is used and credits are issued each member, the debits and credits being entered in individual books, but instead of dollars the entries represent hours of work computed at the prevailing scale.

One of the most important activities which has been developed is said to be that in relation to housing. As a result of the application of the principle of the exchange of services, landlords have been willing in some instances to accept various types of exchange credits instead of dispossessing tenants who were unable to pay rent. It is said that empty houses and apartments, and even hotel accommodations have been made available in return for the work of carpenters, painters, and plumbers, and in a number of cases the loss of property by foreclosure has been averted by this means. Finance and realty companies, faced with a dead weight of taxed but untenanted property, have been glad to take advantage of such an arrangement.

The exchange also deals in a limited but increasing extent in commodities. Fruit growers, unable to sell their produce except at a loss, are offering quantities of it where it stands, the exchange providing pickers, packers, and trucks for the collection of the fruit and its distribution to the members.

Although it is not claimed for the Los Angeles experiment that it reaches very deeply into unemployment distress, it is believed to have been of considerable benefit to those cooperating in it. While it started without the experience of similar ventures as a guide and has met some difficulties, it has now reached a point, the writer says, "where it offers a pattern which other communities might profitably study either for a new section of a going nonprofit-making exchange, or as a new activity promoted by a chamber of commerce or by a council of social agencies."

New Hampshire Plan for Reemployment

A PLAN for the spreading of available work through the combining of a shortened working week with a flexible arrangement which would allow the absorption of the unemployed without placing an added burden upon industry was advocated at a conference held in Boston, July 20.[1] The plan, called the "New Hampshire plan for reemployment," was presented to a representative group of officials, including the governors of five New England States, industrialists and other business men, educators, economists and social workers, and labor executives. The joint conference was held under the sponsorship of the Massachusetts Commission on the Stabilization of Employ-

[1] The New England Council. New England News Letter, Special supplement, Aug. 1, 1932. Statler Building, Boston.

ment and the New Hampshire Unemployment Relief Committee, and under the direction of a committee on arrangements of which Gov. John G. Winant of New Hampshire was chairman.

The chief differences between the proposed plan and ordinary plans for spreading work lie in the temporary nature of the usual spread-work plans and the fact that they place the entire burden upon labor while under the proposed plan a flexible method of putting men back to work permanently is provided which is supported by ownership and management as well as labor. The flexibility of the plan is particularly stressed as a necessary part of such an attempt to put men back to work, as the conditions in no two organizations are exactly alike and it is highly important that the plan should be adjustable according to the varying circumstances of the business or industry.

In a paper presented to the conference by Harold M. Davis, in which the plan is analyzed, it is said that the labor surplus resulting from occupational obsolescence is estimated at 3,000,000 persons. This surplus is increased whenever the major part of such jobs as the frontier settling and railroad building of the last century is finished, or the automobile and highway building of this century, and is still further increased through machine and methods developments. The surplus can be decreased, on the other hand, only by discovering new jobs or by shortening hours. With not enough new jobs being developed and productivity progressing steadily, it appears that the only sensible move is to shorten hours. Mr. Davis states also that while it is regarded as important to put the workers back at work it is considered even more important to create a sense of job security by showing all the workers of the country that our industrial machine does not ruthlessly discard millions of workers. In an age of mass production and mass consumption it is said to be doubtful if business confidence is possible without a feeling of job security, and once this sense of security is created there is greater opportunity for an upturn in business which will take care of the balance of the unemployed.

The statement of Governor Winant in opening the conference, which gives an outline of the proposed plan, is as follows:

The New Hampshire plan would restore to industrial, commercial, and other employment any desired number of those at present unemployed.

The principle of the flexible work day and work week is effective because of its very flexibility. If applied in any widespread manner it would be possible immediately to increase the number of workers on pay rolls. This would be done as follows:

First, by contributions from those still employed in a specific business, including wage earners, salaried executives, and stockholders, the latter by a contribution from dividends if the business can pay dividends.

Second, without increasing the cost of running a business.

Third, without necessitating increased floor space or additional machinery or equipment.

Fourth, without increasing production.

Fifth, with compensation to wage earners of shorter hours more than equivalent to the contribution from their wages.

The principle is flexible as applied through plans for each type of business. Technicians have proved the principle applicable to all varieties of conditions in individual businesses.

The principle would not apply to businesses where hours already have been considerably shortened until these businesses are restored to greater productivity. As present employees have their hours lengthened the plan would apply after a certain maximum has been reached, beyond which new employees would be hired rather than present employees stepped up to still longer hours.

The plan would remain operative until unemployment is eliminated, and could again become operative by degrees if unemployment reoccurred.

Benjamin Franklin told the American people in a time of national crisis that their salvation lay not in government but in themselves. The New Hampshire principle shows the people, from wage earners through executives to stockholders, how to provide their own salvation in the present crisis. The principle will work without disadvantage to those businesses which apply it whether they be few or many, and no matter where they may be located.

A study was made of the offices in several different types of business—insurance, textile, paper, soap, rubber, and optical goods—and on the basis of the seven offices studied it was found that contributions of 4 to 5 per cent of salaries of over $5,000, 3 to 4 per cent on salaries of $1,500 to $5,000, and 2 to 3 per cent on salaries under $1,500 would provide salaries of $780 to $1,000 per year for 10 per cent more people, while if a 5 per cent contribution from profits or dividends was available the contributions from salaries could be reduced and the salaries of the new employees increased. The hours of the extra people would be used to shorten the hours of the regular force and a 2-shift system of 5 hours each is advocated as it would secure the maximum use of the floor space and equipment. Under this plan no work need be done on Saturdays. Other variations of the flexible plan are: A single shift in normal hours and a 5-day week, and uniform shortening of hours for everyone on either a 5 or a 5½ day week. In general it is considered that the 2-shift plan is the economical practical plan for nation-wide adoption at the present time.

There were several resolutions passed either by the conference as a whole or by the different committees. A general resolution adopted unanimously states that—

The New England Joint Conference on Reemployment respectfully requests the President of the United States to consider the wisdom of calling a national conference immediately, at which there can be effected an organization which will help make operative throughout the States a shorter and more flexible work day and week, by which new employment may be offered to some millions of people, approximating it is hoped an additional 10 per cent to the number of people now under employment, this plan to be put into effect without increasing operating costs of business, without necessarily increasing plant investments, and without increasing inventories, by, for illustration, small contributions to be deducted from pay rolls of wage earners still employed at least two-thirds of their normal hours and by the necessary remaining contributions from salaried executives and owners of the business.

The governors of the several States agreed to present the plan to conferences within their several States and urged the governors of the other 42 States to call similar conferences at which all groups in industry should be represented. The plan was also indorsed by the committees representing business and industry, labor, and social agencies, and the agricultural committee, stating that it heartily approved of the plan for a more equal distribution of employment of labor in industry, also pointed out that, while there is no reasonable objection to a natural farmward movement among persons who have had experience in farming and who have capital to establish themselves, it would be very unwise to promote such a movement among those not so equipped, as it would only serve to transfer the present unemployment difficulties of industry to an already overburdened agriculture.

Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from July, 1930, to the latest available date:

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Per cent		Number	Per cent	Number	Per cent
1930							
July	(1)		153,188	15,302	2.4	48,580	7.7
August	(1)		156,145	17,747	2.8	51,649	8.2
September	90,379	20.5	163,894	23,693	3.8	61,623	9.9
October	(1)		192,778	27,322	4.3	54,804	8.5
November	(1)		237,745	38,973	6.1	76,043	12.0
December	104,951	23.4	294,845	63,585	9.3	117,167	17.0
1931							
January	(1)		331,239	77,181	11.1	112,734	16.2
February	(1)		334,041	81,750	11.7	121,906	19.4
March	113,614	25.8	304,084	81,305	11.3	125,972	17.7
April	(1)		246,845	70,377	10.0	110,139	15.6
May	(1)		208,852	56,250	7.9	97,755	13.8
June	118,424	27.6	191,150	62,642	8.9	101,616	14.4
July	(1)		194,364	64,644	9.1	116,747	16.3
August	(1)		196,321	70,893	9.9	120,669	16.8
September	120,694	28.3	202,130	74,175	10.3	119,433	16.6
October	(1)		228,101	82,811	11.3	122,733	16.8
November	(1)		273,658	93,487	13.3	134,799	19.2
December	118,732	28.0	329,627	128,884	17.0	159,941	21.1
1932							
January	(1)		358,114	153,920	20.0	179,560	23.2
February	(1)		361,948	168,204	21.3	180,079	22.8
March	120,366	28.3	352,444	155,653	19.4	185,267	23.0
April	(1)		303,888	152,530	18.8	183,668	22.6
May	(1)		271,481	160,700	18.9	191,084	22.5
June	124,068	30.0	265,040	153,659	18.7		
July			266,145				

Date (end of month)	Canada	Czechoslovakia			Danzig (Free City of)	Denmark	
	Per cent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Per cent		Number	Per cent
1930							
July	9.2	77,309	46,800	4.1	15,330	26,200	9.3
August	9.3	88,005	52,694	4.7	15,687	26,232	9.0
September	9.4	104,534	57,542	5.3	16,073	27,700	9.0
October	10.8	122,379	61,213	5.5	17,307	32,880	11.4
November	13.8	155,203	65,904	5.9	20,272	44,200	15.3
December	17.0	239,564	93,476	8.3	24,429	71,100	24.6
1931							
January	16.0	313,511	104,580	9.5	27,081	70,961	24.2
February	15.6	343,972	117,450	10.0	28,192	73,427	26.0
March	15.5	339,505	119,350	10.0	27,070	67,725	22.1
April	14.9	296,756	107,238	8.9	24,186	45,698	15.3
May	16.2	249,686	93,941	7.6	20,686	37,856	12.3
June	16.3	220,038	82,534	6.6	19,855	34,030	11.3
July	16.2	209,233	82,759	6.6	20,420	36,369	11.8
August	15.8	214,520	86,261	6.9	21,509	35,060	11.8
September	18.1	228,383	84,660	6.7	22,922	35,871	12.1
October	18.3	253,518	88,600	6.9	24,932	47,196	16.0
November	18.6	336,874	106,015	8.2	28,966	66,526	22.3
December	21.1	480,775	146,325	11.3	32,956	91,216	30.4
1932							
January	22.0	583,138	186,308	14.0	34,912	106,464	35.1
February	20.6	631,736	197,612	14.8	36,258	112,346	37.3
March	20.4	633,907	195,076	14.6	36,481	113,378	37.5
April	23.0	555,832	180,456	13.3	33,418	90,704	29.9
May	22.1	487,228	171,389	12.7	31,847	79,931	26.1
June	21.9	466,948			31,004	80,044	25.6
July		457,207				92,732	29.5

[1] Not reported.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Estonia	Finland	France	Germany			
					Trade-unionists		
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Per cent wholly unemployed	Per cent partially unemployed	Number unemployed in receipt of benefit
1930							
July	762	4,026	856	2,765,258	20.5	13.9	1,900,961
August	1,039	5,288	964	2,883,000	21.7	14.8	1,947,811
September	1,414	7,157	988	3,004,000	22.5	15.1	1,965,348
October	3,282	10,279	1,663	3,252,000	23.6	15.4	2,071,730
November	5,675	10,740	4,893	3,683,000	26.0	16.1	2,353,980
December	6,163	9,336	11,952	4,384,000	31.7	16.9	2,822,598
1931							
January	5,364	11,706	28,536	4,887,000	34.2	19.2	3,364,770
February	4,070	11,557	40,766	4,972,000	34.5	19.5	3,496,979
March	2,765	11,491	50,815	4,756,000	33.6	18.9	3,240,523
April	2,424	12,663	49,958	4,358,000	31.2	18.0	2,789,627
May	1,368	7,342	41,339	4,053,000	29.9	17.4	2,507,732
June	931	6,320	36,237	3,954,000	29.7	17.7	2,353,657
July	634	6,790	35,916	3,976,000	31.0	19.1	2,231,513
August	933	9,160	37,673	4,215,000	33.6	21.4	2,376,589
September	2,096	12,176	38,524	4,355,000	35.0	22.2	2,483,364
October	5,425	14,824	51,654	4,623,480	36.6	22.0	2,534,952
November	7,554	18,095	92,157	5,059,773	38.9	21.8	2,771,985
December	9,055	17,223	147,009	5,668,187	42.2	22.3	3,147,867
1932							
January	9,318	20,944	241,487	6,041,910	43.6	22.6	3,481,418
February	9,096	18,856	293,198	6,128,429	44.1	22.6	3,525,486
March	8,395	17,699	303,218	6,034,100	44.6	22.6	3,323,109
April	6,029	16,885	282,013	5,934,202	43.9	22.1	2,906,890
May	4,853	13,189	262,184	5,582,620	43.3	22.9	2,658,042
June	5,384	12,709	232,371	5,475,778	43.1	20.4	2,484,944
July			262,642	5,393,392			

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary	
	Compulsory insurance				Number of persons registered with employment exchanges	Trade-unionists unemployed	
	Wholly unemployed		Temporary stoppages			Christian (Budapest)	Social-Democratic
	Number	Per cent	Number	Per cent			
1930							
July	1,405,981	11.6	664,107	5.5	2,011,467	920	19,081
August	1,500,990	12.4	618,658	5.1	2,039,702	847	21,013
September	1,579,708	13.1	608,692	5.0	1,114,955	874	22,252
October	1,725,731	13.9	593,223	4.8	2,200,413	999	22,914
November	1,836,280	14.8	532,518	4.3	2,274,338	975	23,333
December	1,853,575	14.9	646,205	5.3	2,392,738	935	24,648
1931							
January	2,044,209	16.5	618,633	5.0	2,613,749	953	26,191
February	2,073,578	16.7	623,844	5.0	2,627,559	965	27,089
March	2,052,826	16.5	612,821	5.0	2,581,030	996	27,092
April	2,027,896	16.3	564,884	4.6	2,531,674	1,042	27,129
May	2,019,533	16.3	558,383	4.5	2,596,431	843	26,131
June	2,037,480	16.4	669,315	5.4	2,629,215	751	23,660
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716
October	2,305,388	18.1	487,591	3.8	2,755,559	1,020	28,998
November	2,294,902	18.0	439,952	3.4	2,656,088	1,169	29,907
December	2,262,700	17.7	408,117	3.2	2,569,949	1,240	31,906
1932							
January	2,354,044	18.4	500,746	4.0	2,728,411	1,182	32,711
February	2,317,784	18.2	491,319	3.8	2,701,173	1,083	32,645
March	2,233,425	17.5	426,989	3.3	2,567,332	1,024	31,340
April	2,204,740	17.3	521,705	4.1	2,652,181	961	30,057
May	2,183,683	17.1	638,157	5.0	2,741,306	922	28,835
June	2,145,157	16.8	697,639	5.5	2,747,343		
July					2,811,782		

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Irish Free State	Italy		Latvia	Netherlands	
	Compulsory insurance—number unemployed	Number of unemployed registered		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
		Wholly unemployed	Partially unemployed		Number	Per cent
1930						
July	(1)	342,061	24,209	607	29,075	6.7
August	(1)	375,548	24,056	573	32,755	7.6
September	20,775	394,630	22,734	1,470	35,532	8.2
October	22,990	446,496	19,081	6,058	41,088	9.6
November	25,622	534,356	22,125	8,608	46,807	11.8
December	26,167	642,169	21,788	10,022	81,204	18.2
1931						
January	28,681	722,612	27,924	9,207	100,340	23.2
February	26,825	765,325	27,110	8,303	109,235	23.5
March	25,413	707,486	27,545	8,450	102,743	21.8
April	23,970	670,353	28,780	6,390	68,860	14.3
May	23,016	635,183	26,059	1,871	60,189	12.2
June	21,427	573,593	24,206	1,584	59,573	11.7
July	21,647	637,531	25,821	2,169	69,026	13.3
August	21,897	693,273	30,636	4,827	70,479	15.3
September	23,427	747,764	29,822	7,470	72,738	15.7
October	26,353	799,744	32,828	13,605	84,548	18.0
November	30,865	878,267	30,967	18,377	107,372	18.5
December	30,918	982,321	32,949	21,935	147,107	27.8
1932						
January	31,958	1,051,321	33,277	26,335	145,124	27.0
February	31,162	1,147,945	26,321	22,222	139,956	25.4
March	30,866	1,053,016	31,636	22,912	119,423	21.6
April	32,252	1,000,025	32,720	14,607	121,378	21.7
May	35,874	968,456	35,528	7,599	112,325	22.5
June		905,097	31,710		113,978	22.8
July		931,291			123,947	24.6

Date (end of month)	New Zealand	Norway			Poland	Rumania
	Trade-unionists, number unemployed	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Per cent			
1930						
July	(1)	4,723	10.8	11,997	193,687	23,236
August	7,197	5,897	13.4	12,923	173,627	24,209
September	(1)	7,010	15.7	17,053	170,467	39,110
October	(1)	8,031	18.0	20,363	165,154	36,147
November	8,119	9,396	21.4	24,544	209,912	42,689
December	(1)	11,265	25.5	27,157	299,797	36,212
1931						
January	(1)	11,692	26.3	28,596	340,718	38,804
February	(1)	(1)		29,107	353,925	43,270
March	[2] 38,028	11,213	24.9	29,095	372,536	48,226
April	[2] 36,981	(1)		28,477	351,679	41,519
May	[2] 40,507			25,206	313,104	33,484
June	[2] 45,264			22,736	274,942	28,093
July	[2] 47,772			20,869	255,179	29,250
August	[2] 50,033			22,431	246,380	22,708
September	[2] 51,375			27,012	246,426	22,909
October	[2] 50,266	[3] 9,048	[3] 19.6	29,340	255,622	28,800
November	[2] 47,535	10,577	22.8	32,078	266,027	43,917
December	[2] 45,140	12,633	27.2	34,789	312,487	49,393
1932						
January	[2] 45,677	14,160	30.4	35,034	338,434	51,612
February	[2] 44,107	14,354	30.6	38,135	350,145	57,606
March	[2] 45,383	15,342	32.5	38,952	360,031	55,306
April	[2] 48,601	14,629	30.8	37,703	339,773	47,206
May	[2] 52,451	13,465	28.3	32,127	306,801	39,654
June				28,429	252,900	33,679
July					219,900	

[1] Not reported.
[2] New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.
[3] Strike ended.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
				Unemployment funds				
	Number unemployed registered	Trade-unionists unemployed		Wholly unemployed		Partially unemployed		Number of unemployed registered
		Number	Per cent	Number	Per cent	Number	Per cent	
1930								
July	7,095	27,170	7.8	4,751	1.9	15,112	6.2	7,236
August	7,099	28,539	8.1	5,703	2.3	19,441	7.9	6,111
September	7,527	34,963	9.8	7,792	2.5	26,111	8.3	5,973
October	9,013	43,927	12.2	7,399	3.0	23,309	9.4	6,609
November	12,110	57,070	15.3	11,666	4.7	25,793	10.5	7,219
December	15,245	86,042	22.9	21,400	6.6	33,483	10.4	9,989
1931								
January	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
July	17,685	46,180	12.4	12,200	3.3	39,000	11.3	6,672
August	20,205	48,590	12.7	9,754	3.6	33,346	12.4	7,466
September	21,741	54,405	13.7	15,188	4.0	42,998	11.2	7,753
October	24,685	65,469	16.4	18,000	4.8	47,200	13.2	10,070
November	28,659	79,484	19.9	25,200	6.6	51,900	14.4	10,349
December	35,045	110,149	27.2	41,611	10.1	61,256	14.9	14,502
1932								
January	38,790	93,272	24.5	44,600	10.6	67,600	14.8	19,665
February	42,394	93,900	23.0	48,600	11.3	70,100	15.0	21,435
March	44,883	98,772	24.4	40,423	9.0	62,659	14.0	23,251
April	42,993	82,500	21.0	35,400	7.7	58,900	12.6	18,532
May	42,881	75,650	18.9	35,200	7.6	54,500	11.5	13,568
June	40,188	79,338	19.5	33,742	7.1			11,418

Two English Plans for Utilizing Unemployment

THE long-continued depression in England is leading to a number of attempts, entirely outside of the national measures, for meeting the needs of certains groups or classes who are unable to find employment, in such a way that the present relief methods will have a future value. Recent issues of the Manchester Guardian give some details as to two of these, each small in extent, dealing with widely different classes, and planned to meet wholly dissimilar circumstances.

Self-Help Among Architects

OWING to various economy measures many architects and draftsmen, especially from the London County Council and other public offices, have found themselves unemployed. For six months past the Royal Institute of British Architects and the London Society have been cooperating in a scheme to find and finance work for these within their own profession. The more fortunate architects are contributing to a fund, which now amounts to about £100 a week, and this is spent in employing architects several days a week on preparing plans and maps of the built-up area of London, and also on making drawings and records of seventeenth and eighteenth century houses not formerly recorded. An exhibition of the work done was recently held, and in the opening speech Lord Crawford pointed out that this is a unique

attempt on the part of the profession to help its members. The kind and purpose of the work exhibited is discussed by the Manchester Guardian:[1]

> One of the chief things is a big surface utilization map of London, beautifully done in colors, which shows at a glance the distribution of open spaces and the factory and residential areas.
>
> There are many detailed maps of the same kind, and all this work is the beginning of doing for Central London what the Greater London survey is doing for the areas on the fringe. Much of this valuable material has never been collected before, and the general aim, as Lord Crawford put it, is "to find out what London is to-day before we make up our minds what the London of the future ought to be." There are now 50 men at work either on zoning or planning for the future London, and one important piece of work is the preparation of a plan for the redevelopment of North Kensington at the request of the Kensington Housing Association. * * *
>
> The plans of London that are now being prepared will be of the greatest value when, if ever, great schemes of reconstruction are undertaken. He boldly looked forward to a time when the community would decide that the sensible thing to do with the great mass of workless men in the building and public works industry will be to mobilize them for the destruction and rebuilding of the East Ends of the cities. The architects, he suggested, had shown a way towards such a future by undertaking preparatory work which badly needs doing, and which could never be done in busy times.

Three-Year Training Program for Homeless Unemployed

AT Blackpool the authorities responsible for the relief of the "casual poor," i. e., the homeless wanderers, are planning a campaign for the reclamation and training of young people of this type. The intention is to work in close cooperation with a private agency which plans to take over a considerable estate with a large house and home farm, and to use this in giving wayfarers a three years' training in farming and domestic and gardening work. The capital outlay for this plan was estimated at £5,000.

Unemployment Relief Measures in New Zealand[2]

ON March 23, 1932, J. G. Coates, the New Zealand minister responsible for the handling of unemployment, presented to the House of Representatives a statement of the work of the unemployment board, showing the measures in use and proposed for dealing with the unemployed. Under the New Zealand law wide powers are given to an unemployment board, which is financed by a levy made on all employed males, and by a special income tax, originally fixed at 3d. (6 cents) in the pound ($4.87), levied on all earned income, except wages earned by girls and women in domestic service, and wages paid to men on relief work or from the unemployment fund. This tax also applied, with certain modifications, to income derived from sources other than wages and salaries. (See Labor Review, December, 1931, p. 88.)

In his statement Mr. Coates pointed out that there was ground for congratulation in that the board had at least met the most extreme need, and that the increase of unemployment had been checked.

> In reviewing the past few months we are able to see some cause for satisfaction. The rate of increase in the number of registered unemployed has at least been

[1] Issue of July 26, 1932, p. 8.
[2] Data are from New Zealand Unemployment Board, Statements by minister in charge of unemployment, 1931 and 1932. Wellington.

arrested in the meantime. The total stood at 51,408 on October 5; it has been reduced by 7,000, and has now been fairly constant at about 45,000 for several weeks. The figure on March 14 was 44,399. At this period a year ago the steeply rising figures of unemployment showed no slackening whatever; the registrations, in fact, increased from 6,000 in October to 31,000 in March last year.

Employment Plans in Use

THE board is bound to furnish relief in work, wherever that is possible, and in endeavoring to meet this requirement, it has adopted several schemes, some of which are in use in the United States, while others have not yet been tried here. Camps for the unemployed have been established, and up to the time of the report about 1,000 single men had been transferred from the congested districts and employed on highway construction. These camps had proved so successful that the principle was to be extended and applied to other forms of employment. A beginning had already been made in establishing camps for married men "to enable them to engage in more useful work than they could be offered in the cities."

Gold mining is another form of industry into which the unemployed had been drafted by the unemployment board acting in cooperation with the mines department.

With gold over £6 [3] per ounce as compared with £3 17s. 10d. a year ago, many workings which were not worth while have now become so. Most of the men out prospecting and fossicking are now able to earn a living without assistance, and some have done quite well. Some hundreds of these men in necessitous circumstances have been given a start from unemployment funds. The unemployment fund will be recouped to the extent of 10 per cent of all gold won.

Assistance to Agricultural Schemes

Two plans were adopted with the direct purpose of making unemployment relief helpful to the farmer. Under the first, farmers might obtain subsidized workers, preferably for developmental work, but not necessarily so. If not developmental, the work must be productive, and proof was required that the labor furnished would be additional to that which would otherwise be employed, and that it would not operate to displace men already at work. Under such circumstances the board furnished 10s. a week for single and £1 per week for married men, the farmer providing food and lodging. This plan is to be continued and extended, the board now undertaking to furnish huts, or the material for them, if the farmer is unable to provide lodging. Under the second plan, the board undertook to pay one-third of the wages of men engaged on contract to develop farm land, the farmer providing food and lodging; apparently, however, this plan proved less satisfactory than the first, for Mr. Coates makes no reference to continuing it.

Rural Allotments for Families

THE drop in unemployment, it is pointed out, has not been uniform throughout the different classes of the workless, the decrease having been greatest among those whom it is easiest to handle.

Although the total of registered unemployed has fallen in the past five months there is one group in which the numbers have not fallen, and that is the married

[3] Pound at par=$4.87; exchange rate for June, 1932=$3.65.

men in cities. While the total of single men registered as unemployed in the four main cities has fallen from 9,000 to 7,000—a drop of 23 per cent—the number of unemployed married men in the cities was 11,500 in October, and is still 11,200 in March—a negligible drop of 2 per cent.

To meet this situation, it is proposed to move as many as possible of such families to the country under a scheme of rural allotments, with precautions against the difficulties which usually arise when an attempt is made to set up city workers on farms.

Sections of from 5 to 10 acres will be acquired by any form of tenure which is most suitable to the case, and a cottage of the public-works type will be erected thereon. The allotments will be distributed throughout rural districts. The occupant of the section will work some of the time for himself on his place in providing his own sustenance, and part of the time for a near-by farmer or anyone in the locality who can employ him. It is recognized that relief workers who are thus moved out will not immediately be able to earn an independent livelihood. Some part of the present relief allowance must therefore be continued. Again, there are many cases where a landowner could make available to a worker a portion of his land, and the occupant would work in the same way—that is to say, part of the time on his allotment, and part for farmers in the district. * * *

This matter of placing unemployed on rural allotments has been carefully considered. We are well aware of its difficulties and of its limitations; it is not wholly a land-settlement scheme, but rather an emergency measure to move some thousands of persons into an environment with opportunities for the individual. At the very least it will provide a shelter until the storm has passed over, and is certainly preferable to keeping families in congested areas with little hope or opportunity.

Other Lines of Work

Mr. Coates mentions several other contemplated plans for employing men usefully, but gives no details as to the amount of work which they may be expected to provide. Among them are land drainage, the reclamation of tidal flats, the reclamation of virgin land, and road work, particularly in districts where good roads are scarce. Gold prospecting and gold mining especially are to be pushed.

Cost and Financing of Unemployment Relief

The income of the unemployment fund, Mr. Coates stated, was at that time £2,500,000 a year, and its expenditures were practically the same amount. More revenue would be needed for the coming year. Carrying out the plans for transferring the unemployed from the cities to the country, while profitable in the long run, would require a higher initial cost than caring for them where they were; a considerable proportion of the men employed on public works and paid from capital funds would have to be taken over by the unemployment board, and so likewise would certain classes of the unemployed now helped by other public agencies. An increase in the tax rate seemed inevitable, and Parliament would be asked to raise the special tax to 1s. in the pound.

The New Zealand unemployment plan has been criticized on the ground that while women are taxed for its support it makes no provision for helping them if unemployed. In the present statement Mr. Coates makes no mention of unemployed women, and if any work for their relief is being undertaken, he does not refer to it.

LAND SETTLEMENT FOR UNEMPLOYED

Migration to and from Farms in 1931 [1]

THE farm population was 31,260,000 persons on January 1, 1932, as compared with 30,612,000 on January 1, 1931, a gain of 648,000, according to an estimate of the United States Department of Agriculture. The increase in 1931 was the largest and most significant recorded by the Bureau of Agricultural Economics in the 10 years in which the bureau has been estimating changes in population. For seven years of this period annual decreases were reported and only during 1930 and 1931 were appreciable gains indicated.

The bureau estimates that 1,472,000 persons left farms for towns and cities last year, and that 1,679,000 persons moved farmward. For the year 1930 it was estimated that 1,766,000 persons moved from cities to farms and 1,727,000 persons moved from farms to cities—these two movements almost balancing each other. There was a slight decrease in the number of persons going to farms in 1931, and a considerable decrease in the number going to cities.

In the movement from cities to farms for both 1930 and 1931, and continuing into 1932, were many farmers' sons and daughters who had previously migrated to towns and cities. Many of these upon losing their city jobs have returned to the home farm, many bringing families with them. Some city families have found refuge on the farms of other relatives.

These figures do not take into account another change that has been widely heralded as a "back-to-the-farm" movement, a change that has been under way since 1930. Many city and town families are now planting subsistence gardens of ¼ to 2 acres where formerly they purchased all of their foods. Some of these families have moved to abandoned farms as a means of lowering their house rents, in addition to raising some of their foods; others have obtained small plots of ground close enough to their present homes to avoid moving. Relief agencies in several cities have aided by furnishing seeds, fertilizer, some gardening equipment, and the use of plots of ground. In a lesser number of cases these agencies have moved families to houses where some cultivable plots of ground would be more accessible.

The bureau points out that this movement is not a genuine "back-to-the-farm"movement, since very few of the people are engaging in farming as a business, but is almost wholly an attempt to obtain low-cost housing and partial subsistence. For the relief agencies, it is a means of reducing somewhat the cash cost of meeting the minimum subsistence needs of persons for whom they are caring. In addition, it gives the unemployed something to do and for some of the children it means an opportunity to benefit by an abundance of fresh air and sunshine.

[1] Press release of U. S. Department of Agriculture, dated July 15, 1932.

The number of persons leaving farms exceeded the number arriving at farms in 1931 only in the New England and South Atlantic States. In each of the remaining seven geographic divisions, the movement countryward exceeded the movement cityward, being most pronounced in the East North Central States, West North Central States, and West South Central States.

These population estimates are based upon information supplied to the bureau by thousands of farm families all over the country. They are not, however, strictly comparable with figures published in previous years by the bureau, because this report has been revised on the basis of the 1930 census. The statistics concerning population movements to and from farms for the period 1920 to 1930 are being revised so as to take into account the 1930 census as well as the trends indicated by sampling reports obtained annually from farmers by the Bureau of Agricultural Economics.

The following figures show the estimated number of persons moving to and from farms in 1931, and the estimated farm population on January 1, 1931 and 1932, as given by the Bureau of Agricultural Economics:

ESTIMATED NUMBER OF PERSONS MOVING TO AND FROM FARMS IN 1931, AND ESTIMATED FARM POPULATION ON JANUARY 1, 1931 AND 1932

Geographic division	Number of persons moving, 1931—		Farm population	
	To farms	From farms	Jan. 1, 1932	Jan. 1, 1931
New England	46,000	48,000	572,000	571,000
Middle Atlantic	92,000	90,000	1,741,000	1,724,000
East North Central	265,000	217,000	4,614,000	4,530,000
West North Central	356,000	288,000	5,166,000	5,047,000
South Atlantic	156,000	184,000	6,032,000	5,942,000
East South Central	134,000	119,000	5,276,000	5,157,000
West South Central	381,000	300,000	5,531,000	5,364,000
Mountain	105,000	92,000	1,163,000	1,132,000
Pacific	144,000	134,000	1,165,000	1,145,000
Total	1,679,000	1,472,000	31,260,000	30,612,000

Settlement of Unemployed on Land in New Brunswick

THE New Brunswick Government is taking initial steps for establishing new settlements for the unemployed on the Crown lands of the Province, according to a report from Frederick C. Johnson, the American vice consul at Fredericton, New Brunswick, under date of June 8, 1932. Surveys of the agricultural potentialities of these public lands are being made by the officials of the New Brunswick Department of Lands and Mines. The new settlements are to be located in the central and southern St. John River Valley, and the settlers will be recruited mainly from the cities of Fredericton and St. John, where numerous families are undergoing hardships as a result of unemployment. Fredericton will probably furnish 80 families for settlement on these lands.

The scheme under which the relief money will be disbursed to the families is participated in by the Dominion, the provincial, and the municipal governments. Each family will be allotted $600 and 100 acres of land and will be obliged to reside on the land and cultivate a

minimum of 10 acres. The settlers from Fredericton will be granted acreages in the St. John River Valley approximately 25 miles south of that city, where the main trunk highway cuts through the Crown lands. Wherever it is practicable the new settlements will be located within a short distance of a city or town, so that neighboring markets will be available, as this is highly important in the placement of settlers.

Every municipality in New Brunswick has been circularized for the purpose of ascertaining how many prospective settlers these cities and towns will contribute. It is intended to select settlers who have had more or less experience in farming and persons who are physically fitted to be pioneers. Back-to-the-land schemes are being recommended not only in New Brunswick but in other Canadian Provinces "as one of the most effective means to relieve unemployment." It is believed that, undoubtedly, the settlers will be able to raise enough vegetables to meet their requirements for next winter, and will probably produce a surplus which may be sold in the near-by markets.

Farm Settlements in Quebec

THE present economic depression has stimulated the promotion of land settlement in the Province of Quebec through the return to abandoned farms in sections which have long been cultivated and also through the colonization of hitherto uncultivated regions. The settlers are French Canadians who have been living in New England cities and factory towns and French-Canadian families or individuals from the cities and factory towns of the Province of Quebec. A report on this movement, which is sponsored by the provincial government of Quebec and the Catholic Church, has been prepared by Wesley Frost, American consul general at Montreal, under date of May 30, 1932, and is here summarized.

Racial Constitution of Rural Population

IN 1931 the population of the Province of Quebec was 2,870,000, French Canadians constituting 80 per cent of the people. Two-thirds of the remaining 20 per cent were English, Scotch, and Irish stock and one-third were immigrants from continental Europe and their immediate descendants. At present the rural population is only 37 per cent of the total, while in 1891 the proportion was 77 per cent. In recent decades the Anglo-Saxon farmers have deserted the soil of Quebec, possibly because their relatively small families and their insistence upon certain living standards have placed them at a disadvantage as compared with the French Canadians.

Population distribution and migration.—The French Canadians have such large families that they have been able to take over agriculture completely and also to maintain their full share in the exceedingly rapid expansion of the urban population. In 1928 the Quebec birth rate was 31.6 per 1,000 and would be considerably higher for the French-speaking population alone.[1]

So great has been the pressure of population that many young French Canadians have emigrated to New England. According to

[1] The birth rate of the United States for that year was 19.8 per 1,000 in the registration areas (including 95 per cent of the population).

the United States census, there were in 1930 no less than 264,241 French Canadians born in the Dominion residing in the six New England States. In recent years, however, immigration has been declining and had dwindled to small dimensions even before the adoption of the present immigration policy by the United States.

Effects of the industrial depression.—As employment decreased in 1929 and 1930 in the lumber and pulp and paper industries of the factory villages and towns along the Ottawa Valley and in the hinterland to the north of the Montreal-Quebec section of the St. Lawrence River, substantial numbers of workingmen, chiefly French Canadians, flocked to Montreal and other large cities to look for jobs. As the depression deepened the industries in Montreal were compelled to reduce their personnel and the unemployment situation became critical. It is estimated that 80,000 people were unemployed in that city, the island of Montreal having a population of just over 1,000,000. As there are relatively fewer women employed in Montreal industries than in New England industries, the proportion of heads of families out of work was higher in the Canadian city. Never before in the history of the Province has the unemployment problem been so severe. Public works begun in 1930 and 1931 with the view of furnishing employment have to a great extent been terminated, and it is doubtful whether governmental borrowing to extend such projects in 1932 and 1933 will be practicable.

Resettling Abandoned Farms

Desertion of farms in long-settled sections.—In 1931 there were 136,061 farms under cultivation in Quebec, according to the Canadian census for that year. This was a decrease of 1.1 per cent as compared with the number in 1921, the 1921 figure in turn representing a decline of 8.7 per cent as compared with that of 1911.

In addition, the census shows 2,746 farms as vacant in Quebec. The net decrease, moreover, is due to the abandonment of farms in the 40 long-settled counties. (The 26 counties containing new settlements showed slightly increased numbers of active farms, although large numbers of new-land farms even in these counties have been abandoned while still in the process of being cleared.)

Agriculture here has been far from prosperous; and quite independently of the depression, there has existed for several years past a serious problem of farm discontent.

Since 1926 the prices of all kinds of farm products have decreased. The prevailing cost of land has declined somewhat in recent years, so that the French Canadians living in the cities who contemplate going back to the land have the impression that they can obtain farms on desirable terms.

Recent back-to-the-land movement.—A considerable number of French-Canadian factory workers who have had no jobs for the last two years have thus been able to consider returning to their own farm lands or purchasing comparatively low-priced abandoned farms.

Up to the present nothing has been done by the provincial government to regulate this movement. "It is only the industrial crisis in the manufacturing areas that has induced French-Canadian working-class people themselves to contemplate resuming rural life; and this crisis is, of course, very recent." In many instances city residents have merely returned to their parents or relatives living on farms. In other instances the bargains in farm lands in the section of the Province

from which the urban workers came have been an incentive for such workers to return to their native districts. While there are no statistics on this movement, it is known that it has reached considerable proportions. In view of the probable increasingly critical situation resulting from unemployment and the exhaustion of funds for public works, it is suggested that many families, rather than apply for direct relief, will go of their own accord to the rural regions where they can at least get some kind of an independent living. "It would not be surprising to see the establishment of a system of subsidies and premiums devoted particularly to the rehabilitation of the long-settled farming counties by transferring back to them from the cities those unemployed elements which are best suited to the resumption of agricultural pursuits."

Repatriation of French Canadians from New England

In 1930 the Quebec movement to repatriate French Canadians in the United States gained momentum, and a permanent office of the Quebec Ministry of Colonization, Game, and Fisheries was established in New Hampshire. In that year 347 families, including 1,708 persons, were placed for the most part upon abandoned farms in the south central section of the province and are reported in most cases as having readapted themselves easily to farm life. In 1931 no fewer than 455 families (2,173 persons) were recruited and distributed mainly in the long-settled farming areas between the border of the United States and the St. Lawrence River. In the summer of 1931 it was reported that 95 per cent of the families who had gone back in 1930 were still on the farms. These returned families are those who have been least successful in the United States or who are not willing to adapt themselves to American customs.

Apart from the repatriation induced by governmental activities and subventions, there has been a constant flow of French Canadians voluntarily returning from the United States as a result of the reduction of employment in the textile and other industries in New England since the war.

In view of the employment situation, however, it is probable that in securing settlers for farms in the long-cultivated sections less effort will hereafter be made to get French Canadians from the New England States and the colonization movement is likely to be more and more restricted to its local and intraprovincial aspects.

Colonization of New Lands

Uncultivated regions adaptable for settlement.—The area of the Province of Quebec is 594,000 square miles, excluding Ungava or New Quebec. The rigorous climate in the northern districts has resulted in leaving both the private and public domains chiefly for lumbering (including wood pulp for newsprint paper), mining, and hydroelectric developments. In certain sections south of the forty-ninth parallel of latitude large areas are considered by many persons as being susceptible of settlement. These areas are generally well wooded. Thus the first task of the settler is to clear the land, and this has in some regions been facilitated through forest fires. A few years ago the provincial government undertook to clear some parts of each

homestead before its purchase by the settler. This procedure, however, was found too expensive and was abandoned.

Each county of Quebec has its provincial agricultural expert, and in the colonization regions these salaried agronomists are more numerous. They are instrumental in obtaining free livestock, lime, etc., for the homesteaders who are most needy and deserving.

The provincial government has always been willing to allow prospective settlers to take up grants from Crown lands, but until recently the only outstanding encouragement in this connection was the construction of roads. "Schools and chapels have also been built by the Province in such regions, the latter only recently with unemployment relief funds."

On June 30, 1930, the completely surveyed provincial lands available for immediate purchase by prospective settlers totaled 8,463,816 acres. The total areas, however, disposed of in recent years have averaged about 165,000 acres per annum. Admittedly, a very large percentage of the sales are not permanent, as the would-be colonists become discouraged and go back to the more cultivated regions of the Province. In 1930, for instance, the Province sold 164,696 acres, and 121,461 acres were returned by previous purchasers.

Conditions of sale to homesteaders.—Practically ever since Canadian confederation in 1867 settlers have been able to buy uncleared lands from the Province of Quebec for 60 cents an acre. The first payment has varied from $10 to $20 and at present stands at the first-mentioned figure.

The remaining payments are now spread over five years, although formerly they were made in three annual installments. As a rule each pioneer settler is restricted to tracts of 100 acres, but if he has four or more children under 16 years of age he may be granted a second tract of the same size.

Within a year and a half after he has received his location ticket, each settler is required to build a house 16 by 20 feet on his homestead, and he must reside there continuously until he secures his letters patent. Within five years after first occupancy each settler is also required to construct a barn at least 20 by 25 feet and a stable at least 15 by 20 feet. The barn and stable, however, may be under the same roof and constitute one building.

Settlers may use the timber on their homesteads freely for their own buildings and fences, and they may also cut and sell their timber commercially, provided they comply with the same regulations which govern timber companies relative to payment of stumpage fees, precautions against fire, etc. Homesteaders may also earn bonuses of $12 per acre up to 20 acres for clearing their land and $12 per acre up to 10 acres for first plowing.

Reduced transportation rates.—A prospective settler on public land is granted a reduction in railroad fare when he visits regions to select land for settlement. He also has the advantage of reduced rates for himself, his family, and his possessions to the selected locality.

Governmental employment and direct relief.—With a view to aiding homesteaders in their first two or three seasons, the settlers are ordinarily furnished employment on public construction works. The building of barracks, schools, and chapels also provides temporary work. During the last two seasons, besides the regular colonization

road projects, some special employment-relief bridge and road building has been done, but this has apparently been given up.

According to a reliable private estimate, $416,000 was expended by the Province during the fiscal year ending March 31, 1932, for direct relief to settlers, including food, household necessities, and clothing. The number of families assisted was 4,285. A moderate proportion of the funds was furnished by the Dominion Government.

Supplemental indirect relief costing $613,400 was also provided, benefiting 5,000 families. The Dominion Government contributed $98,600 of the amount.

Sales of wood—Local jobs.—The depression has greatly affected the newsprint-paper mills in the remote regions of Quebec, so that the revenue which colonists secured from the extraction and sale of pulpwood has been reduced, pulpwood selling at $7 per cord only two or three years ago, while now the price is $3.50, with limited purchases.

> The same is true with respect to the cutting of wood for lumber, as the lumber business is worse than stagnant and its market practically dead. It is said that the lumber dealers were rapacious in dealing with the homesteaders, ravishing their tracts of all the finest timber and paying ridiculously low prices. This has partly accounted for the extensive abandonment of homesteads, and many settlers have merely taken up lands for the purpose of realizing quick gains by selling their timber to lumber dealers of dubious character.

Free land for returned soldiers.—In the fiscal year ending March 31, 1932, under the Quebec soldier settlement act, 24 grants of land totaling 2,400 acres were made by the ministry of colonization to returned soldiers.[2]

Results of colonization work.—According to the statistics of the provincial colonization and propaganda agency at Quebec, 25,482 settlers' certificates were issued by that office during the seven years closing June 30, 1931. In addition it is estimated that during the same period 11,666 certificates have been issued in various towns, making a total in round numbers of 37,000 certificates, which, the report states, should be increased by approximately 50 per cent to ascertain the number of persons involved. "According to the reports of individual colonization missionaries, however, the estimate which would thus be reached—about 55,500 persons—would be well below the actual total of persons migrating onto homesteads."

There is considerable variation in the estimates as to the number of persons who actually took up residence in the colonization areas of Quebec in 1931. The American consul general at Montreal considers that 20,000 is probably the best estimate, although one of the most zealous colonizing propagandists declares that not over 1,900 new homesteads were opened during that year, which would represent approximately 10,000 persons.

Even the most ardent promoters of colonization acknowledge that the settlers face a life of hardship and strenuous labor—quite comparable to pioneer settlers in the United States 100 years or more ago, except that the weather is not so favorable and there is much less hope of becoming prosperous.

It is not surprising, the report states, that a large percentage of the prospective colonists give up their projects after one or two seasons and return to the localities from which they came.

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[2] The Dominion Government's soldiers' land settlement scheme has cost Canada $54,000,000 and is still piling up losses of $1,000,000 per year.

The following figures show the acreages of lands purchased from the Province and of lands returned to it after revocation of sales from 1925 to 1930:

TABLE 1.—ACRES SOLD TO AND RETURNED BY COLONISTS IN QUEBEC, 1925-26 TO 1929-30

Year	Acres sold	Acres returned
1925-26	175,511	100,360
1926-27	167,864	49,812
1927-28	156,897	97,278
1928-29	145,371	107,130
1929-30	162,814	121,461

The population of specified colonization areas in the Province of Quebec in 1921 and 1931 was as follows:

TABLE 2.—POPULATION OF SPECIFIED DISTRICTS OF QUEBEC, 1921 AND 1931

District	Population	
	1921	1931
Abitibi	13,647	22,113
Temiskaming	11,764	20,801
Lake St. John	35,539	50,539
Saguenay	14,705	19,577
Chicoutimi	37,578	55,724
Gaspe	40,375	45,375
Temiscouata	44,310	50,163
Rimouski	27,520	33,151

According to the American consul, " the census results can not be regarded as encouraging to the advocates of the colonization movement" when consideration is given to the fact that much of the expansion in population may be accounted for by the progress in industry and mineral developments in some of these districts and by the exceedingly high birth rate of the French Canadians.

Attitude of governmental authorities.—It is doubtful whether the provincial government of Quebec will continue its expenditures for settlers. "The minister of roads is said to have stated openly that road making will not be carried on in 1932; and the minister of agriculture has taken the position that the regular agriculture of the Province must be restored to some slight measure of prosperity before it is expanded by the addition of farmsteads in regions not favorable to farming." The treasury of the Province has been affected severely by the depression.

Undoubtedly, the unemployment relief construction work carried on in the past two years has substantially aided colonization by providing labor for settlers in need of cash for food in the early period of their homesteading. These projects were conducted under an agreement that one-third of the cost thereof was to be met by the Dominion Government, one-third by the Province, and one-third by local governments. The Dominion Government has stated that it is not willing to go on with this scheme for the current year; and the financial situation of the local governments will not permit them to continue under such arrangement. The Premier of Quebec has announced

that the provincial government will extend an undetermined amount of assistance for colonization, but that its program has not yet been fully formulated.

The municipal government of Montreal has more than once expressed its willingness to furnish a certain amount of aid to deport unemployed families with rural backgrounds either to forsaken farms or to pioneer colonization regions. The city officials insist, however, that comparatively few persons who are without jobs in that municipality have either the experience or the physique necessary to make a success on the land.

The acting minister of labor and immigration for the Dominion has reiterated that the Federal Government will not finance this year any general plan for farm settlement, but it does propose "to establish a fund on the basis of what would presumably be required to furnish direct relief to those people who will go on the land. These amounts would be capitalized up to a certain period in the future. The fund would be administered by the Provinces and it would be stipulated that the Crown lands be utilized for providing farms." (Montreal Gazette, April 29, 1932.) Such arrangement would depend upon the agreement of the Provinces and municipalities to participate in the relief system.

Progress of Land-Settlement Program in Germany [1]

THE land-settlement movement in Germany, which dates back to 1887, has been given a new impetus by the depression and the decrease in the price of farm land, so much so that the number of new homesteads doubled between 1928 and 1931. From 1887 to 1918 the number of homesteads created was 45,000, and since that time 48,375. In addition 86,000 small farms have been enlarged by giving the farmers more land. Farm laborers to the number of 29,000 have been given a house and small lot. In the 45 years of its existence the movement, therefore, has resulted in the creation of 122,375 individual farms, averaging about 25 acres each.

The purpose of the land-settlement movement is to relieve the unemployment situation, to check the farm-to-city movement, to break up large estates into small farms, and to foster the growth of a stable class of small and independent landowners.

The settlement movement has developed in three directions: (1) The purchase, by the State and by other public and semipublic organizations, of large bankrupt or semibankrupt estates, which are to be cut up into small tracts and turned over to settlers; (2) the provision of houses with small plots of ground for farm laborers; and (3) the enlargement of such plots into self-supporting farms by the addition of more land.

Settlement on Large Estates

THE present land-settlement movement is based on the Federal settlements law of 1919, which provided that land for settlement should be preferably taken from large bankrupt estates. It has been estimated that by breaking up such estates the number of people afforded a livelihood is doubled. During the period 1919 to 1931 approximately 49,000 farms were created in this manner.

[1] Data are from report by C. W. Gray, American vice consul at Berlin, July 12, 1932.

In 1931 approximately 9,000 "self-maintaining" farms were created, as compared with 7,441 in 1930 and 5,545 in 1929. In 1928 there were 4,253 farms created, while the average during the years 1919 to 1928 was 2,643. The comparison becomes still more striking if the area actually distributed in the form of agricultural settlements is taken under consideration. The average area distributed annually from 1919 to 1928 amounted to 64,220 acres, in 1929 it amounted to 150,670 acres, in 1930 to 212,420 acres, and in 1931 to 239,590 acres. From the passage of the Federal settlements law of 1929 until the end of 1931, approximately 48,375 self-maintaining agricultural units were created in Germany, covering something like 1,235,000 acres.

The greater part of the post-war land settlement has taken place east of the Elbe River, where a majority of the large farms are.

These eastern Provinces, especially East Prussia, which are largely agricultural, have been particularly hard hit by the depression and have been the object of special attention on the part of the Government through the eastern relief law. It is, therefore, natural that the land-settlement movement has been stressed in those sections, and as a result most of the new settlements of the last three years have been created there.

The Prussian Minister of Agriculture in 1929 ordered that in the future a larger number of unemployed farm laborers should be given consideration in the distribution of land derived from the division of large farms in Prussia, and that those farm laborers who had been in the employ of the former landowner should be given preference over other applicants. Since that time about one-half of the settlers in Prussia have been farm hands who formerly worked on the estate, and the other half have been free-lance farm laborers, former independent farmers who have lost their property, and other persons in some way or other connected with the soil.

Houses and Lots for Farm Laborers

THE idea of providing German farm laborers with small farms of their own, consisting of a small dwelling house, a barn, and a small piece of land usually not larger than 2 acres, was inaugurated some years ago. Such small plots do not furnish a livelihood for their owners; the latter earn their living by working as farm laborers on near-by agricultural enterprises. The main purpose of this movement has been to provide German agriculture with a sufficient supply of farm hands to replace those foreign farm laborers taken on for seasonal work from neighboring countries.

Up to 1931 approximately 29,000 of these small farms were created in the State of Prussia alone. A large number of these settlers, however, have lost their regular jobs and have therefore been forced to maintain themselves on their small plots. This development has necessitated the enlargement of these small holdings in order to place the inhabitants on an independent financial basis. Land for this purpose has been taken from State farms or cleared State forest land.

Provision of Additional Land

DURING the past three years the enlargement of farm laborers' holdings has made great progress. In 1929, 25,935 acres were distrib-

uted in this way; in 1930 the figure jumped to 39,273 acres, and in 1931 to 54,340 acres.

This movement has been extended also to cover farms considered too small or too poor to afford the owner a reasonable prospect of livelihood. Since 1919 additional land has been distributed to 86,000 farms, the total land so given amounting to 291,340 acres, an average of 3⅓ acres per farm.

Financing of Land Settlement in Prussia

A NUMBER of State institutions, both for the financing of new settlements and the enlargement of small settlements, have been formed in Prussia and in the other German States.

In Prussia a number of semigovernmental land-settlement societies have been formed, the membership of which is made up of counties, cities, Provinces, and agricultural societies. These societies are the backbone of the whole movement for farm settlement.

An instance may be given of how the land-settlement plan is carried out: Thus, a bankrupt estate is bought up by one of the land-settlement societies. It is broken up into small farms and distributed to persons considered by the society to be responsible and capable. The individual settler receives from the German Settlement Bank a short-term loan—usually for six months—for the purpose of buying seed, implements, and other things necessary to put the farm on a producing basis. The funds for this loan come from the Prussian State Bank or the Rent and Credit Bank. As soon as the farm is in operation the settler receives another loan from the Prussian Mortgage Bank with which he pays off his two creditors, the settlement society and the German Settlement Bank; this loan is secured by a mortgage on the settler's farm running usually 40 to 50 years. As before mentioned, the Prussian Mortgage Bank obtains its funds from the sale of mortgage bonds and from incoming payments of settlers.

Effect on Unemployment

SETTLEMENT of the German type affords very little relief for the unemployment situation, except that, to a certain extent, it imposes a check on the farm-to-city movement. It is not believed that unemployed industrial workers will be taken into consideration for land settlement to any great extent during the next 5 or 10 years, even if the number of settlements distributed per year is doubled, as is intended by the government authorities. As 9,000 farms were distributed during 1931 (8,000 in Prussia alone), this would mean that about 18,000 homesteads per year are considered the standard which is to be reached either in this year or the next. At the very utmost it might be possible to distribute as many as 25,000 or 30,000 farms per year. This would mean that 12,000 to 15,000 families per year would find a new means of livelihood, the other 12,000 or 15,000 farms being given to former farm hands. In other words, in the course of, say, 10 years it might be possible to provide 120,000 to 150,000 families with sufficient land to offer them a means of existence and to keep them from burdening the labor market.

The above number is not impressive, as in 10 years the total number of persons kept from being unemployed in this manner would not

amount to more than 300,000, assuming that there are two persons to a family who may be considered laborers in the usual sense of the word. On the other hand, it must not be forgotten that unemployment relief in this manner is of a permanent nature, whereas all other plans are generally temporary expedients, involving work for not more than six months or a year. The present practice of giving a very small number of the agricultural settlements to industrial workers who at one time or another have already done farming work may be continued, but even in that case the number of industrial workers to which this practice would apply would amount to no more than a few thousand.

At the present rate of land settlement and considering the amount of land available, the movement could be continued for a period of something like 66 years. Within this period approximately 1,000,000 families could be placed on an independent financial basis in addition to the million families whose heads are now occupied as farm hands. This would mean that in the course of 66 years the entire land now in the hands of large landowners would be divided up into small farms and distributed among the former farm hands and others, which development is not very likely, at least under present political conditions in Germany.

INSURANCE, PENSION, AND THRIFT PLANS

Effect of the Depression on 20 Stock-Ownership Plans [1]

THE industrial relations section of Princeton University has followed the course of the stock-ownership movement for several years and has compiled statistics from time to time indicating the current situation as to the movement. The extent of employee ownership of company stock was analyzed in the earlier summaries, but on account of the shift in interest to the effects of the depression the statistics collected since 1929 have dealt mainly with the financial elements of the plans. For this purpose a group of 20 companies was selected late in 1929, which is regarded as fairly representative of the movement as a whole.

The group selected contains some of the largest companies in the country and includes 4 oil companies, 2 railroads, 2 public utilities, and 2 steel companies, in addition to a number of manufacturing companies and 1 large chain-store system. In normal times these companies employ approximately 1,500,000 workers.

The net effect of changing market prices on the present gain or loss to the employee purchasing stock at various times is so much affected by bonuses, interest charges or credits, dividends, and stock rights that it was impossible to make any summary of the plans, but the essential data for each company are published separately in the report. However, the following brief statement indicates the extent of the effect of present business conditions on the plans. Of the 20 plans, 5 are now definitely discontinued and 5 others have made no recent offering of stock for employee purchase, while in the case of two companies steps have been taken to distribute stock under altered arrangements. Dividends have not been paid by two of the companies for two or more years, one stopped paying in 1931, and four others have passed dividends in 1932.

Changes in Public Utility Employees' Retirement System in Brazil

THERE is no general old-age pension or insurance system in Brazil. The railway employees, however, have for some years had a retirement system, which by successive decrees has been extended to cover port workers and all employees of all types of public utility companies. This system was described in some detail in Bulletin No. 561 of the Bureau of Labor Statistics.

According to a report from Theodore A. Xanthaky, American vice consul at Rio de Janeiro, soon after the issuance of the decree of

[1] Princeton University. Industrial relations section. Statistical analysis of 20 stock-purchase plans, 1925–1932, by Helen Baker. Princeton, 1932.

October 1, 1931 (by which the extension of coverage to all public utility employees was made), it developed that the terms of the decree were causing hardship to the small-wage earners covered by the system. The decree also had failed to take into consideration certain foreign employees who were already making contributions to funds in their native country.

Changes designed to meet these objections are made in the law by a decree (No. 21081) issued February 24, 1932. The most important of these changes are noted below.

Contributions

THE contributions from the employees will consist of (*a*) an entrance contribution amounting to one month's wage or salary, payable in 60 (formerly 24) monthly installments; (*b*) a percentage of the monthly pay, varying from 3 to 5 (formerly 3 to 6) per cent, according to the proportion that the expenditures from the fund to which the employee belongs form of the revenue; and (*c*) the first month's increase in wages, payable in a lump sum.

Foreign technical employees whose salaries are determined in foreign currency and who have been hired for a definite period are not required to contribute. They may, however, elect to come under the law, in which case their contributions will be computed at the rate of foreign exchange obtaining the day before the contribution becomes due.

Benefits

THE rate of benefit remains the same as before in most respects, the ordinary retirement allowance being calculated at the rate of 85 per cent of the average monthly wages received during the past three years' service. The minimum monthly benefit for ordinary retirement remains 200 milreis,[1] but the maximum benefit is reduced from 3,000 milreis to 2,000 milreis. The new decree also provides that in case the employee's earnings are less than 200 milreis per month the retirement allowance shall be equal to the amount of the earnings. As before, that part of the retirement allowance which exceeds 600 milreis per month is subject to a reduction or discount ranging from 3 per cent on allowances of 601 to 700 milreis to 15 per cent on those of over 1,000 milreis.

To obtain the full benefit for ordinary retirement the employee must have had at least 30 years' service, have attained the age of 50 years, and have made 5 years' contributions.

The new decree provides that an employee who is over 55 years of age and has had more than 20 years' service [2] may retire, receiving one-thirtieth of the average annual wage for each year of service, subject to a maximum of 85 per cent of wages.

A company may require the retirement of an employee who has reached 50 years (formerly 55) but whose period of service is insufficient to qualify him for ordinary retirement and who is shown by medical examination to be incapable of performing his normal duties; in such cases, however, the company must pay both its own and the employee's contributions for the remainder of the period of service required for ordinary retirement.

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[1] Milreis at par=11.96 cents; exchange rate for June, 1932=7.5 cents.
[2] Formerly 50 years of age with more than 30 years' service, or 60 years and more than 20 years' service.

A benefit is also paid, on medical certificate, in case of total disability after 5 years' service, amounting to one-thirtieth of the average pay for the last 3 years of service, subject (in the new decree) to a maximum of 30 years' service. The provision of the former decree, that in case of disability retirement the minimum monthly allowance shall be 200 milreis, is omitted in the new decree.

Survivors' benefits.—In case of the death of an insured having more than five years' service, the following are eligible for benefit (in the order indicated), provided they were totally dependent on the deceased: (1) The surviving wife, invalid husband, and children (legitimate, legitimated, or legally adopted); (2) invalid father or widowed mother; and (3) single sisters. The former provision, that on the death of a widower or widow their share shall revert to the minor children and unmarried daughters, is omitted in the new decree.

The decree of February 24, 1932, however, adds the provision that survivors' pensions begin on the day of the death of the insured.

Medical, etc., benefits.—The funds are directed, as heretofore, to maintain medical, hospital, and pharmaceutical services, but the former limit on expenditures for this purpose, 8 per cent of the total annual revenue, is raised to 10 per cent. The new decree specifies that the "pharmaceutical service" shall consist of medicines at the lowest possible price, but not below cost.

Operation of Old-Age and Health Insurance System for Wage Earners in Chile

A SHORT account of the operation of the wage earners' old-age and health insurance system in Chile during 1931 is given in a report from Thomas D. Bowman, American consul general at Santiago, dated July 20, 1932.

Old-age and health insurance is compulsory for all wage earners whose yearly earnings do not exceed 8,000 pesos.[1] Such persons are obliged to make contributions amounting to 2 per cent of their wages, their employers must contribute 3 per cent of their pay roll, and an additional 1 per cent is given by the Government.

The benefits paid are calculated on an actuarial basis, taking into consideration the age of the insured, the period of insurance, the amount of contributions paid, etc. The benefits include not only the regular retirement annuity but also medical treatment, special maternity benefits, and 300 pesos for funeral expenses.

According to the report, 527 old-age or invalidity pensions have been granted. Of these, 58 have ceased because of the death of the pensioner. There were, therefore, at the end of 1931 pensioners numbering 469.

The following table shows the receipts and expenditures of the Fund for Compulsory Insurance (*Caja de Seguros Obligatorios*), which administers the system, from the time of the establishment of the system to the end of 1931.

It is seen that more than 79 per cent of the total expenditures went for medical aid and that less than one-half of 1 per cent went for

[1] There is also a system of insurance for salaried employees, but no benefits have as yet been paid under it. For an account of both systems see Bulletin No. 561 of this bureau (pp. 158–161).

pensions. The consul remarks, in this connection, that, owing to the short time that the system has been in operation, "the demand for old-age pensions has not yet developed to anything like the extent that may be anticipated."

He also points out that "the medical benefits that have been available, more particularly since the recent acute economic depression when unemployment has been so widespread, have proven of inestimable benefit to the lower classes of Chile."

RECEIPTS AND EXPENDITURES OF WAGE EARNERS' OLD-AGE PENSION SYSTEM IN CHILE, APRIL, 1925, TO DECEMBER 31, 1931

Receipts	Amount	Expenditures	Amount
Contributions from—	*Pesos* [1]	Benefits paid:	*Pesos* [1]
Employers	169, 450, 194. 66	Medical aid	149, 118, 684. 82
Employees	122, 858, 062. 95	Pensions	745, 282. 78
Government	77, 336, 228. 22	Social protection	281, 648. 18
Total	369, 644, 485. 83	Total	[2] 150, 145, 649. 78
Interest	47, 211, 747. 38	Operating expenses:	
Tax (1 per cent)	20, 167, 869. 08	General administration	23, 471, 791. 18
Proceeds from bonds	1, 227, 840. 88	To National Savings Bank	14, 098, 736. 65
Fines	625, 248. 94	Commissions on sale of stamps	209, 641. 42
Grand total	438, 877, 192. 11	Grand total	187, 925, 819. 03

[1] Peso=12.17 cents. [2] Not the exact sum of the items, but as given in report.

Reduction of Social Insurance Benefits in Germany [1]

THE present depression has threatened the stability of all six branches of the German social insurance system, namely, invalidity and old-age insurance for wage earners, invalidity and old-age insurance for salaried employees, sickness insurance, accident insurance, miners' insurance, and unemployment insurance.

The Federal budget contains appropriations of 1,364,000,000 marks ($324,632,000) for public purposes, of which 867,000,000 marks ($206,346,000) are for unemployment relief, 402,000,000 marks ($95,676,000) for a subsidy to the invalidity and old-age insurance for wage earners, and a subsidy of 95,000,000 marks ($22,610,000) for the miners' insurance. This represents about one-sixth of the estimated receipts of the Government for the current fiscal year. Never before has such an amount been expended for this purpose, and the Government has announced that the present rate of subsidy to the social insurance system is of an entirely temporary nature and can not be kept up for any length of time.

The system as a whole has been rolling up a steady deficit, and late in 1931 a special committee of the Reichstag, after careful study of the situation, reported that measures would have to be taken to avoid the necessity for the various branches of the system to sell their property at such an unfavorable time. The influence of this report was seen in a number of provisions of the emergency decree of December 8, 1931, tending toward the reduction of expenditures. Further measures, having as their aim the establishment of a sound financial basis for the social insurance system, are contained in certain provisions of the latest emergency decree of June 14, 1932. These measures have in all cases taken the form of a reduction in the amount of benefits paid.

[1] Report from C. W. Gray, American vice consul at Berlin, July 7, 1932.

Invalidity and Old-Age Insurance

Wage earners' insurance.—Formerly the average old-age or invalidity benefit amounted to 36 marks ($8.57)[2] monthly, but effective July 1, 1932, it was decreased to about 29 marks ($6.90), a reduction of 19 per cent. The old average benefit was made up of the basic rate amounting to 14 marks ($3.32), the average supplement amounting to 16 marks ($3.81) and depending on the number of contributions paid in, and a Federal allowance of 6 marks ($1.43). The reduction was brought about by lowering the basis rate from 14 to 7 marks ($3.32 to $1.67). Allowances for each child under 15 were reduced from 10 to 7.50 marks ($2.38 to $1.79) monthly, a 25 per cent decrease. The average monthly benefit of widows and widowers, which amounted to six-tenths of the above-mentioned basic and additional rates, or 18 marks ($4.28), plus the Federal allowance of 6 marks ($1.43), making a total of 24 marks ($5.71), was reduced to five-tenths of the rates plus the Federal allowance of 6 marks ($1.43), which brings the benefit down to 21 marks ($5), a reduction of 12½ per cent. Average monthly benefits of orphans, which formerly amounted to 18 marks ($4.28)—five-tenths of the above basic and additional rates plus Federal allowance of 3 marks ($0.71)—were reduced to 15 marks ($3.57)—four-tenths of the above rates plus the Federal allowance of 3 marks ($0.71); this is a reduction of 16⅔ per cent.

Salaried employees' insurance.—The annual report of the Federal Insurance Bureau showed that the average monthly benefits of the invalidity and old-age insurance for salaried employees amounted to 80 marks ($19.04) during 1931. This was made up of the basic rate of 40 marks ($9.52) paid by the bureau to all beneficiaries alike regardless of the amount of contributions made by them, an average supplement of 20 marks ($4.76), the actual amount depending on the total contributions, and a further additional rate of 20 marks ($4.76) paid by the State insurance bureaus. Various reductions took place on July 1. Persons not considered invalids under the regulations or who have not reached the age of 65 will after August 1 not receive the additional rate heretofore paid by the State bureaus. The average rate of benefits paid such persons will, therefore, in the future amount to 53 marks ($12.61), consisting of the basic rate, which has been reduced to 33 marks ($7.85), and the average supplement, which remains unchanged at 20 marks ($4.76). This will mean a reduction of 33.6 per cent from the old monthly rate of 80 marks ($19.04). If the beneficiary is an invalid or above the age of 65, he will receive the reduced basic rate of 33 marks ($7.85) plus an average additional rate paid by the Federal Insurance Bureau amounting to 20 marks ($4.76), and a further average additional rate paid by the wage earners' insurance system, 15 marks ($3.57), formerly 20 marks ($4.76). The average monthly pension paid to such persons will in the future amount to 68 marks ($16.18), a reduction of 15 per cent from the former rate. Allowances for children under 15 will on August 1 be reduced from 10 to 7.50 marks ($2.38 to $1.79) monthly, a decrease of 25 per cent. Benefits paid to widows or widowers of insurants were reduced from sixth-tenths to five-tenths of the benefit formerly received by the insured husband or wife.

[2] Conversions into United States currency on basis of mark = 23.8 cents.

The invalidity and old-age insurance for salaried employees has been the strongest of all the types of social insurance, and although receipts showed a considerable decline in 1931 and expenditures an increase, the year closed with a surplus of 260,000,000 marks ($61,880,000). However, it was deemed necessary to lower the rates of benefits in this branch for the sake of treating both wage earners and salaried employees in a like manner.

Miners' Insurance

THE reduction brought about in the invalidity and old-age insurance of both wage earners and salaried employees applies equally to the two branches of the miners' insurance, namely, those for wage earners and salaried employees, and the benefits paid by the miners' insurance will be the same as in the two general insurance systems mentioned above.

Accident Insurance

IN THE accident insurance system an average reduction of 13 per cent was put into effect July 1. Benefits for accidents sustained prior to Jauuary 1, 1932, were reduced by 15 per cent and those for accidents after that date by 7½ per cent. The reason for the smaller reduction of the latter is that wages on which such benefits are based were considerably lower than those which form the basis of the benefits before the first of the year.

Changes in National Health Insurance System in Great Britain

IN ITS session ending July 13, 1931, the British Parliament passed an act making certain changes in the national health insurance scheme, of which one of the most important relates to the sickness and disablement benefits payable to women. For unmarried women the rate of sick benefit was left unchanged at 12s.[1] a week, but the rate of disablement benefit is to be reduced from 7s.6d. to 6s. a week. In the case of married women the rate of sick benefit is to be 10s. and the rate of disablement benefit 5s. a week. The new rates are to become effective January 1, 1933. In a memorandum explaining the bill, issued by the Minister of Health, it is pointed out that for some years past the amount paid in sickness and disablement benefits to women has been considerably in excess of the actuarial provision for this purpose, and that the discrepancy is steadily increasing.

In a report by the Government actuary, presented to Parliament in 1930, it was shown that in a large representative group of approved societies the sickness benefit claims of unmarried women (taking all ages together) had risen by 29 per cent and those of married women by 42 per cent between 1923 and 1927, while in the case of disablement benefit the respective increases were 54 per cent and 87 per cent.

Loss of Contribution Income

UP TO 1928 insured persons who had fallen behind with their contributions to the health insurance scheme were required to make up the deficiency by a cash payment, failing which they could draw only a reduced benefit during the following benefit year. In 1928

[1] Shilling at par=24.3 cents; exchange rate for June, 1932=18.2 cents.

legislation was passed under which all arrears, if due to genuine unemployment, were excused without any reduction in benefit. In the memorandum just referred to it is pointed out that this imposes upon the scheme a heavier loss than it can carry.

With unemployment at its present figure, this concession of complete excusal of arrears is placing on approved societies a burden of over £2,000,000 a year, which is altogether beyond their capacity. It is proposed that in future arrears due to unemployment should only be excused to the extent of one-half. * * * Full benefits will be paid to insured persons for 50 contributions a year. Credit will be given for one-half the weeks of unemployment, and any shortage of contributions, after giving that credit and allowing for weeks of sickness, if not redeemed by payment of the appropriate sum within the time allowed, will involve a corresponding reduction in the rate of benefit for the ensuing year, beginning with the year 1934.

Continuance of Pension Rights During Unemployment

UNDER the provisions of the widows', orphans', and old-age contributory pension act, pension provisions are interlocked with the health insurance scheme, those who retain their rights under the latter plan being automatically retained in insurance for pensions also. As unemployment continued, legislation was passed several times to prevent the loss of pension rights of those who by reason of unemployment could not pay their contributions. (See Monthly Labor Review, March, 1931, p. 83.) The last of these extension periods was to end December 31, 1932. The new bill provides for the extension of insurance to December 31, 1933, of persons who would otherwise, by reason of prolonged unemployment, cease to be insured before that date. The pension rights of such persons will be fully protected, and under the health insurance plan they will be entitled to medical benefits.

The bill further provides that any persons who are kept in insurance until December 31, 1933, as explained above, and who are still unemployed up to that date, shall remain insured during the year 1934 for pension purposes, but with no title to any health insurance benefits, and similarly if unemployment continues throughout 1934 insurance for pensions only is extended to December 31, 1935.

Widows', Orphans', and Old-Age Pensions in Scotland, 1931

THE third annual report of the Department of Health for Scotland gives some details concerning expenditures on contributory pensions for widows, orphans, and the old up to December 31, 1931. At that date the approximate number of persons insured for pensions purposes was 1,963,510, including 1,302,800 men and 660,710 women. The number receiving pensions and allowances was 261,149, grouped as follows:

NUMBER OF BENEFICIARIES UNDER PENSION ACTS IN SCOTLAND, DECEMBER 31, 1931

Class of beneficiary	Men	Women	Children	Total
Widows and orphans	----------	72,475	41,027	113,502
Pensions—				
65–70 years of age	44,072	24,563	----------	68,635
Over 70 years of age	45,647	33,365	----------	79,012
Total	89,719	130,403	41,027	261,149

In addition there were 759 pensioners receiving pensions elsewhere in the British Dominions.

Receipts and Expenditures

FROM January 4, 1926, when the contributory pensions act became effective, to December 31, 1931, the receipts of the scheme amounted to £17,585,674 ($85,580,683).[1] The amount paid out in widows' pensions was £7,662,055 ($37,287,391); in orphans' pensions, £302,253 ($1,470,914) and in old-age pensions (at ages 65 to 70), £6,303,435 ($30,675,666), making a total of £14,267,743 ($69,433,971). Expenses of administration had amounted to £712,839 ($3,469,031), and £2,092 ($10,181) had gone in irrecoverable overpayments, leaving a balance on account of £2,603,000 ($12,667,500).

Noncontributory Pensions

THE number of noncontributory old age pensions payable in Scotland on December 31, 1931, was 83,109, comprising 20,886 to men and 62,223 to women. Of these, 81,245, or 97.8 per cent, were payable at the maximum rate of 10s. per week. These numbers include 3,234 pensions to blind persons. The corresponding figures for 1930 were: Total pensions payable, 87,477, comprising 21,763 to men and 65,714 to women; the number payable at the maximum rate, 85,593, or 97.8 per cent; the number of blind persons' pensions, 3,231.

Suspension of Old-Age Pensions in Uruguay

URUGUAY has five separate systems of old-age pensions and insurance.[2] One is a general pension system covering all persons, while the other four are contributory insurance systems covering special classes of workers.

The general old-age pension system, established in 1919, provides benefits for persons 60 years of age or over who are totally incapacitated and in dire poverty.

A recent report from Leslie E. Reed, American consul general at Montevideo, states that the funds in the system have been rapidly decreasing since early in 1931. In February and March, 1932, the receipts of the fund were 280,000 pesos,[3] while the disbursements were about 700,000 pesos. There are 36,000 pensioners, of whom 25,800 are Uruguayans and 10,200 are foreigners. The Uruguayans receive 10 pesos per month and the foreigners 8 pesos. Administrative expenses amount to about 10 per cent of the total expenditures.

On April 18, 1932, the Government Insurance Bank announced that, in view of the situation, pension payments would have to be suspended until June, as the March payments had exhausted the funds.

It was expected that the receipts of the fund in August (when the proceeds of the tax levied on real estate for pension purposes become available) would permit resumption of pension payments until about December when another stringency is expected.

Additional sources of revenue are stated to be necessary if the fund is to continue payments at the scale of benefits now provided. Cer-

[1] Conversions on basis of pound=$4.8665.
[2] These were described in detail in Bulletin No. 561 of this bureau (pp. 349-358).
[3] Peso at par=$1.03; exchange rate for June, 1932=47.2 cents.

tain organizations are quoted as being of the opinion that the allowances are too liberal. It is also pointed out that the laws permit a person covered by one of the special old-age insurance systems and drawing benefits from it, also to receive the general old-age pension. The number of beneficiaries has also been increased to a considerable extent due to the employment situation, as some persons entitled to pension but not having availed themselves of it have been forced to make application therefor.

INDUSTRIAL AND LABOR CONDITIONS

Vacation Practices and Policies in New York City in 1932

A RECENT survey covering the present vacation policies and the effect of recent business conditions on past established policies of New York City business concerns has been made by the industrial bureau of the Merchants' Association of New York. The study covered 273 employing members of the association, and the data relate to approximately 200,000 employees and workers and cover 11 classified business groups and a small group of miscellaneous industries. The principal business groups are manufacturing; wholesale trade; retail trade; printing and publishing; construction trades; transportation, warehousing, and forwarding companies; importers and exporters; banking and investment houses; insurance companies and agencies; professional offices; and chambers of commerce, trade associations, education and research agencies.

The policies with regard to vacations have been revised since 1929 by 74 of these companies, and in all but two cases the revisions are said to be the direct result of the efforts of the employers to effect economies or otherwise relieve the pressure of current business conditions. Although the character of the revision varies according to the conditions in the individual establishments, in 32 cases these revisions are in the nature of direct reductions in pay-roll expense. The most frequent methods by which this result is accomplished are: Requiring employees to accept vacations at a fraction of their scheduled salary rates, imposing additional vacations without pay, or requiring that regular vacations be taken without pay. In order to conserve time because of the heavy burdens on present personnel as the result of reductions in force, 20 companies had found it necessary to take such measures as the shortening or the entire elimination of vacations or the substitution of Saturday holidays for regular vacations.

Of the 273 companies responding to the inquiry, 265 reported that salaried employees would receive a vacation this year, and of 115 reporting in regard to hourly employees, 65 reported that some part of the hourly workers would be given vacations. The usual vacation allowance is two weeks for salaried employees and one week for hourly employees. Of 271 employers reporting on the question of the length of the vacation to be given to salaried employees, 8 reported they were giving no vacation; 11, less than two weeks; 176, two weeks; 6, each three and four weeks; and 64 were giving somewhat indefinite vacations varying from one to two weeks to four to six weeks. Among the companies reporting regarding hourly employees, 53 were giving no vacation, while 20 gave one week, 31, two weeks, and the remainder different periods varying from ten days to four weeks.

Reports regarding the amount of salary payments during the vacation period were made by 262 companies. Of this number, 218 were paying full salaries during vacations; 4, two-thirds; 22, one-half; and

1, one-third salary. In one case the pay was graduated, half pay being given for service of from six months to two years and full pay for two years or more, and another company paid half the salary to employees entitled to two weeks' vacation, while 15 of these companies gave vacations without pay. Among the hourly rated employees of 59 reporting companies, 36 stated that full wages would be paid; 1, two-thirds wages; 11, one-half wages; and 1, half pay to employees entitled to two weeks' vacation. Ten companies gave vacations without pay. In 16 of the companies paying a fraction of wages, either to salaried or hourly rated employees, this fractional basis was reached by requiring employees to extend vacations at their own expense. One hundred and fifteen companies reported that extra leave without pay would be allowed, 19 said this would be allowed in special cases only, and 111 stated that it would not be granted. The amount of extra leave allowed by those reporting ranged from one to five weeks, while in a number of cases it was indefinite or optional with the employee. One hundred and fifty-six companies reported that vacations must be taken for continuous periods, but the majority of those reporting on this point did not allow extra time for Sundays or holidays falling within an employee's vacation period.

Adjustment of Claims and Complaints by Philippine Bureau of Labor, 1926 to 1930

ONE of the most important functions of the Philippine Bureau of Labor is in connection with the settlement of claims and complaints with reference to unpaid wages, claims for one month's pay in the case of dismissal without the notice required by law, claims for the recovery of personal effects, and for reemployment. Through the activity of this agency laborers and employees are aided in the settlement of claims against masters and employers, which would entail a good deal of expense on the complainants if they employed lawyers and brought these cases to courts of justice.

The following statistical summary of the work of the bureau along this line for the 5-year period 1926 to 1930 is taken from the annual report (p. 279) of the Governor General of the islands for the last-mentioned year:

ADJUSTMENT OF CLAIMS AND COMPLAINTS BY PHILIPPINE BUREAU OF LABOR, 1926–1930

[Peso=about 50 cents in United States currency]

Year	Number of cases	Number of claimants	Adjustments		Amount collected
			Favorable	Unfavorable	
					Pesos
1926	766	1,697	447	319	23,575.26
1927	728	1,418	493	235	18,171.91
1928	923	2,146	511	412	22,912.21
1929	956	1,630	560	396	22,611.79
1930	1,125	2,172	575	550	18,967.94
Total	4,498	9,063	2,586	1,912	106,239.11

Labor Administration in China

AMONG the more important items on the program of the Chinese Department of Labor are the following, according to a recent announcement made by the Ministry of Industry of the Republic: [1]

(1) Investigation of labor conditions; (2) continuation of the reorganization and registration of trade-unions; (3) establishment of machinery for the settlement of labor disputes; (4) promotion of the adoption of the factory council system; (5) division of factory inspection areas; (6) encouragement of workers' education; (7) drafting of regulations for workers' savings banks; (8) application of the law relating to collective agreements; (9) participation in the international labor conference; (10) revision of labor laws; (11) study of the problem of industrial efficiency; (12) compilation of labor statistics; (13) publication of a monthly labor review.

On December 18, 1931, the Chinese Ministry of Industry issued regulations concerning factory registration, which provide that all factories employing 30 or more workers shall make application for registration. New factories must apply before beginning operation; factories already in existence must make application within six months from the date the regulations were issued. Such applications must be accompanied by filled-out forms, one giving the following items: Number of staff; number of male, female, and child workers; minimum and maximum wages of such workers (data to be reported separately for each of the three groups); fixed regular working hours and overtime; hiring methods, contract or otherwise; rules relating to workers' rewards and penalties; details of welfare work, health and safety provisions; and general remarks.

When there is any change in the details reported on the forms after the factory has been registered, such change must be reported and explained to the proper authorities.

The purpose of the regulations is apparently the facilitation of the enforcement of the factory act.

Survey of Labor Conditions in Egypt

IN THE fall of 1931 the Prime Minister of Egypt invited the director of the International Labor Office to send an advisory mission to Egypt, "to study on the spot the actual conditions of the industry of the country, and to prepare for the Egyptian Government a report on the best means of organizing its labor department." The mission was undertaken by the then deputy director of the office, and the results of his study have recently appeared in the form of a report on the general situation, with suggestions for its improvement.

The report points out certain important respects in which the labor situation in Egypt differs from that in Europe and some other countries. Egypt is predominantly an agricultural country, 60.3 per cent of its occupied population gaining their living from the land. The standard of living of the agricultural workers is low, and this naturally tends to keep down the wages of unskilled labor in the towns and cities. Illiteracy is prevalent, and as a consequence it has become customary to fill posts of responsibility and supervision with Europeans, and to intrust only unskilled labor to Egyptians. Children

[1] International Labor Office. Industrial and Labor Information, Geneva, July 11, 1932, p. 51.

are numerously employed in industry, at low wages and with very little protection against exploitation. Women, on the other hand, form rather a small element in the problem, owing to the prevailing custom of marriage between 15 and 20, and withdrawal from industry as soon as married; as in the case of children, there is little legal protection for those working in industry. Egypt has no workmen's compensation laws, and though workers may secure compensation under the common law, their rights are undefined and they can not obtain damages without the expense and trouble of litigation. From the employers' side, also, the situation is unsatisfactory, as judicial practice in regard to awarding compensation differs widely, and employers have no means of estimating their liability. In matters of health and safety, regulation of working hours, measures for relieving unemployment, the legal position of trade-unions, and the like, little has been done so far.

Recommendations

With regard to children it is recommended that the age of employment be raised to 12, employment between 9 and 12 being permissible only in cases where compulsory education is not effective and in occupations which are a real preparation for a handicraft. It is also advised that the exemption allowing juveniles to work 11 hours on certain days should be reconsidered, that rest periods should be required after five hours of work instead of six, and that night work and employment on dangerous processes should be prohibited.

With regard to women it is proposed that night work should be forbidden, that a weekly rest period should be prescribed, that weekly hours in industry should be limited to 50, and that in commercial occupations local or municipal authorities should have power to regulate hours, after suitable inquiry.

Concerning industry in general, it is advised that a workmen's compensation act should be passed following carefully specified lines; that certain regulations for health and safety should be adopted; that several measures should be taken to meet the unemployment situation, that trade-unions should receive legal recognition and registration, that legislation should be passed to insure one day's rest in seven, both in industry and commerce, and that an inquiry should be undertaken as to hours worked at present with a view to subsequent limitation. Other recommendations deal with the contract of employment, termination of employment, and conciliation and arbitration.

Such a program, it is pointed out, can be carried through only by Government initiative and support, and in this work an advisory labor council would prove of advantage. Its appointment should be the first step taken, and it should be carefully selected to include officials of the departments concerned, representatives of employers and workers, and a certain number of qualified persons of independent standing.

WOMEN AND CHILDREN IN INDUSTRY

New Child Labor Legislation in Great Britain

THE Ministry of Labor Gazette, in its issue for July, 1932, states that the children and young persons act, 1932, passed at the recent session of Parliament, received the royal assent on July 12, and is to be brought into operation at a date to be fixed by the Secretary of State. The Gazette gives the following summary of its most important provisions:

Section 49 provides that no child shall be employed under the age of 12 years; but this is qualified by the proviso that local authorities may authorize by by-law the employment of children under 12 by their parents or guardians in light agricultural or horticultural work. The corresponding provision in the existing law does not limit this concession to these forms of employment. Section 49 also provides that no child under 14 shall be employed before the close of school hours on any day when he is required to attend school; but this is also qualified by a proviso enabling the local authorities to authorize by by-law the employment of a child before school hours on a school day for not more than one hour. No child (with the exception of children licensed under section 56 to take part in entertainments) may be employed before 6 a. m. or after 8 p. m. on any day, or for more than two hours on any day when he is required to attend school; nor is any child to be employed on Sunday for more than two hours. No child is to be employed to lift, carry, or move anything so heavy as to be likely to cause injury to him. Under the existing law the corresponding employment provisions cease to apply to children as soon as they become 14. By a new definition in section 60 this protection is now to be continued, for children attending public elementary schools, up to the end of the school term during which the child becomes 14.

Section 50 permits local authorities to make by-laws imposing restrictions on the employment of children additional to the restrictions imposed by section 49; and section 51 permits local authorities to make by-laws with respect to the employment of young persons between 14 and 18 in certain occupations not at present regulated by statute. This section, which would confer entirely new powers on local authorities, is not to come into operation until a resolution to that effect has been passed by both houses of Parliament.

Section 52 deals with street trading. In general, no person under the age of 16 is to engage or be employed in street trading, except that the employment of persons between 14 and 16 by their parents may be permitted under by-laws made by a local authority. Local authorities are further authorized to make by-laws regulating or prohibiting street trading by persons between 16 and 18. (Under the existing law street trading is prohibited by statute up to 14, and regulated by by-law between 14 and 16.)

Sections 55 and 56 deal with restrictions on children taking part in entertainments, and sections 57 and 58 with restrictions on juveniles taking part in, or being trained for, dangerous performances.

Two-Shift System for Women and Young Persons in Great Britain

UP TO the outbreak of the World War, British laws regulating the employment of women and young persons in factory occupations provided that such employees should not begin work before 6 a. m. nor continue it after 8 p. m., their working time falling within a period

of 12 hours, beginning at 6, 7, or 8 in the morning and ending at the corresponding hour of the evening. During the war these regulations were relaxed to permit employment in shifts, and after the war, in 1920, an act was passed designed to retain the advantages of the shift system while guarding against its abuse. Under its terms special permissions or orders might be obtained for individual factories or parts of factories, authorizing the employment of women and young persons at any time between 6 a. m. and 10 p. m., in shifts averaging not more than 8 hours per day. The act was at first limited to a period of five years, but was found sufficiently useful to warrant extension, and has been continued to the present. The chief inspector of factories and workshops gives in his report for 1931 [1] some account of its working.

During the six years preceding 1931 the number of special orders granted under the act rose from 86 in 1925 to 129 in 1930, averaging rather more than 100 a year. But in 1931 there was a sudden increase in the desire for orders, which was especially marked after the abandonment of the gold standard in September. The number issued during the year was 227, or more than twice the average for the preceding six-year period, and of these 107 were granted between October 1 and December 31.

This sudden increase must be directly ascribed to the abandonment of the gold standard and the consequent depreciation of sterling which resulted in a decrease of imports and a rush of orders in certain home industries. Manufacturers, worsted spinners, and hosiery manufacturers in particular, found it necessary rapidly to increase production in order to deliver orders already in hand and to secure new contracts for goods previously imported, for which early delivery was essential. Out of the 120 orders granted after the abandonment of the gold standard 99 were required for one or other of these reasons.

The orders are sought for temporary use in a number of cases to meet such emergencies as a sudden rush of orders, or to tide over a temporary dislocation of plant due to installation of new machinery or to some accidental breakdown, or to make up for delay in receiving required material, or (in one case) to make up the time lost through a trade dispute. Temporary orders are useful also in the case of seasonal trades. In other cases the orders are desired to meet standing conditions.

But there are other cases where this system is adopted as a permanent feature and the factory is designed for permanent shift work either with a view to obtaining an economic output, to meet foreign competition, or on account of the continuous nature of the process. In the latter cases the system allows the employment of women or young persons on shifts and so maintains the balance between the processes on which they are employed and those on which men may already be working on a two or three shift system. This has been particularly the case in the manufacture of artificial silk, an industry which undoubtedly has benefited greatly by the elasticity of a system which has facilitated continuity of working and coordination of output between departments. For the same reasons the shift system has proved beneficial in the making of tin plates, yeast, and carbon paper.

Increase of Employment Due to System

No accurate data are available as to the extra number of workers who have found employment through the use of this system, but practically every order issued means either an increase in the number

[1] Great Britain. Home Office. Factory Department. Report for the year 1931. London, 1932. (Cmd. 4098.)

of persons employed or full-time employment for those previously on short time.

During the past year in particular the granting of orders has led to substantial increase of employment. In five cases more than 100 new workers were taken on for a time, and in one case temporary employment was provided for 250 workers. The increased output of the departments in which shifts are worked often provides extra work in other departments, so that there is an indirect, as well as a direct, increase of employment.

Effect of Orders on Health and Working Conditions

No order is granted until the authorities are satisfied that arrangements have been made for the health and comfort of the workers affected. In shifts of eight hours an interval of half an hour for a meal is invariably required, and since the workers can rarely get home and back within that time a mess room must be provided, properly furnished, and with means for heating water and warming food. There must be means of transportaion for workers who live at inconvenient distances and in general it must be evident that the system will not result in hardship. As a further step in this direction an order will not be granted unless it is requested by the workers as well as the employers.

The objections brought against the plan when it was adopted in 1920, that it would lead to evasions of the night-work provisions for women, that it would upset family life, that it would militate against the health of the workers, that it might be used to substitute women for men, that it might expose the women and young people to physical and even to moral dangers, do not seem to have been supported by the facts. Younger workers sometimes object on the ground that when they are working on the late shift their amusements and outings are curtailed while their domestic duties may be increased. On the other hand the older workers sometimes find they can use their time at home more advantageously under this arrangement. Since the orders will not be granted unless the workers join in the request, it would seem that on the whole they are in favor of the plan, but there is much difference of opinion on the matter.

In the same factory, workers employed on neighboring machines have expressed opposing views; indeed, the system is so linked up with domestic arrangements which vary from house to house that this diversity of opinion is not surprising.

HEALTH AND INDUSTRIAL HYGIENE

Decline in Mortality from Pellagra Among Wage Earners

THE Statistical Bulletin, June, 1932, published by the Metropolitan Life Insurance Co., contains a report of the death rates from pellagra in the United States in 1930 and 1931. From the available data it appears that there was a decline in mortality from this cause during these years, at any rate for the wage-earning populations of the cities in those States in which pellagra is an important cause of death. The mortality rate from this cause has dropped also among the general population in three Southern States where pellagra has been an important cause of death.

It is considered very remarkable that the mortality rate for the disease did not rise, in view of the unfavorable business conditions which prevailed during the two years and especially in 1931. Pellagra is a disease caused by a diet deficient in the vitamins normally found in fresh, lean meat, milk, and yeast, and the reduced incomes resulting from widespread unemployment which would make these foods less readily obtainable would be expected to have the effect of making sickness and death from pellagra more common.

No continuous trend is shown for the death rate from pellagra among the industrial policyholders of the Metropolitan Life Insurance Co. for the 21-year period 1911 to 1931, but the highest death rates, 4.7 and 5.9 per 100,000 for ages 1 to 74, occurred in the years 1914 and 1915, respectively, which were years of below-average business conditions. Since that time, however, the higher mortality rates have not coincided with periods of reduced employment. The death rate from pellagra began to decline during the World War when employment was general and wages were high, and this downward tendency continued to 1924 when the rate was 1.3 per 100,000. After that there was an upward trend to a rate of 2.5 in 1928 and 1929, but a decrease to 2.2 in 1930 and 1.9 in 1931—a decline which was in line with the decline in the general death rate.

There is a pronounced sex and color incidence shown in the mortality figures, the mortality among females exceeding that among males in both the white and colored, but with a very much greater excess among the colored. The mortality rate for colored persons of both sexes is very much greater also than of white persons, running from two to five times that of the white groups. The heaviest death toll from pellagra is exacted in the South, and particularly among that section of the Negro population which lives largely on an unbalanced diet. It is said that it is probable that the reason the death rate did not increase during 1930 and 1931 is partly, at least, the result of the consumption of brewers' yeast distributed by health departments.

Appointment of Occupational Health Council in Massachusetts [1]

AN ADVISORY body to be known as the Occupational Health Council has been recently established in the Massachusetts Department of Labor and Industries. The council will be concerned with the occupational health problems of the State, the study of which has recently been inaugurated with the appointment of an occupational hygienist. The members of the council include prominent representatives of public health and industrial medical services, labor unions, employers' organizations, social and welfare organizations, and insurance companies.

In commenting upon the purpose of the council, the commissioner of the department said:

> We propose to give ourselves the benefit of the best advice obtainable from individuals and institutions concerned with the health of the working population, and we believe it no less important that these interests be kept informed of the work which we are doing. I do not anticipate the need for frequent meetings of the group as a whole, but hope rather for the counsel of its members as it is needed, their criticism as it is called for, and their support as it is merited.
>
> With all regard for the pressing necessity of extreme economy in government, I am confident that this new undertaking of the department will more than justify itself in the reduction of disease arising from inadequately protected industrial occupations in the commonwealth.

Recent Studies of Pulmonary Asbestosis in Germany

AN ARTICLE in The Lancet (London), July 9, 1932 (pp. 92, 93), gives a brief account of recent German reports on the occurrence of pulmonary asbestosis among factory workers. It is stated in the article that although before the war German physicians had noted that there was something unusual in pneumonoconiosis as seen in asbestos workers no extensive studies of such cases had been made until quite recently. In 1931, however, 8 cases occurring in 2 factories in the vicinity of Dresden were described, and shortly after 52 cases occurring in and around the same city were reported.

The writers describing the first group of cases noted that the radiographs in the early stages of the disease showed definite small patches of the size of a small seed in the lower lobes of the lungs and that these patches tended to run together as the disease progressed. The physical signs which developed later were those of a basal bronchitis, sometimes with dry pleurisy, and it was difficult to rule out the possibility of tuberculosis. The writers reporting these cases considered that the individual characteristics of asbestosis are due almost entirely to the chemical composition of asbestos and to the shape of dust particles, and suggest that the different types of asbestos may show different harmful effects as is the case in silicosis.

In the second series of cases, affecting 18 males and 34 females, 30 showed definite changes in the lungs. The longest exposure to dust among this group of workers was 31 years, in a worker aged 60. Dyspnea was the most usual initial complaint and in 43 cases there was cough; night sweats were present in 12 cases; and rheumatic pains, headaches, and general nervous symptoms in 15. Conjunctivitis, a symptom which has not attracted much attention up to this time,

[1] Industry, Boston, Mass., July 16, 1932, p. 5.

was noted in 16 cases; and among other new observations it was found there was a fall in the hemoglobin count. The typical asbestosis bodies were found in 8 out of 28 specimens of sputum examined. The radiographs were divided into three stages. In the first there was an increase in the normal lung markings, with the appearance of a fine not very clearly defined network; in the second stage there was a thicker network with delicate, sharply defined opaque spots; and in the third stage this network was intensified to form a shadowy veil covering the lung. The records indicate that it takes about five years for moderately severe asbestosis to develop, while none of the workers examined who had been exposed for 10 years or more was free from signs of the disease. The most serious cases were found in the spinning sections of the factories.

The results of examination of 33 asbestos workers in a factory in Berlin are reported by two other writers. In these cases nearly all complained of cough and sputum associated with difficult breathing, particularly on exertion or in foggy weather. In 16 cases there was loss of appetite; in 10, loss of weight; in 5 each, pain in breathing and palpitation of the heart; while others complained of faintness and of increasing pallor. Among these persons there was a previous history of pulmonary catarrh in 4 cases, pleurisy in 2, and peritoneal tuberculosis in 1. The authors were unable to trace any close connection between asbestosis and tuberculosis. The findings in these cases agreed with the others reported, the authors noting that the severity of the disease depended rather upon the severity of exposure, that is, the amount of dust inhaled in the different processes, than upon the number of years of employment in the industry. In all cases, however, asbestosis could be demonstrated radiologically when the patients had been employed for more than 10 years.

In regard to the asbestosis bodies these writers agreed with two others who reported the results of two post-mortem examinations on bodies of workers employed in a factory in Münster engaged in crushing, cleaning, and spinning asbestos. It is the theory of these investigators that the asbestosis bodies arise through the deposit, due to the solution of the asbestos, of a colloidal form of liberated silicic acid in the central core of the asbestos fiber. They consider that the disagreement between the chemical appearances, on the one hand, and the X-ray picture, on the other, is a characteristic peculiar to asbestosis. Even the most severe cases of the disease do not give as pronounced a radiological picture as that of silicosis, as the third stage of asbestosis shows a degree of shadowing which would have little clinical significance in silicosis. It is believed by these authorities that the silicic acid acts as a chemical irritant which leads to fibrosis. Connective tissue is considered as particularly sensitive to the action of this acid, and it is suggested that when the silicates of the asbestos are dissolved in the lung tissue, silicic acid is liberated, is taken up by the connective tissue and stimulates increased growth. There are two main types of asbestosis body—the "handle form," with a knob at both ends, and the "carrot form," which tapers at one end. It is suggested by one writer that the shape of the asbestos body depends upon the surrounding tissue, the handle form being produced in places where there is no movement and the carrot form where the tissue fluid is in motion.

Silicosis Among Granite Workers in Great Britain[1]

A STUDY of the occurrence of silicosis in the quarrying and dressing of sandstone and granite was begun in Great Britain in 1926, at which time a preliminary survey of the processes was made. The sandstone section was first dealt with and a report [2] of that branch of the industry was published in 1929. The medical inquiry in the granite section was undertaken in 1929, and was carried out in five districts which are important centers of the industry.

The medical inquiry covered 494 workers in nine occupations who were employed at quarries, crushing plants, building masons' yards, and monumental masons' yards. In addition to the clinical examinations given all these workers, 211 were X-rayed.

Clinical evidence of fibrosis of the lungs was found in 260 cases, or 52.6 per cent of the total number of workers examined, and 36, or 17 per cent, of the 211 workers selected for radiological examination were found to have silicosis. Twenty-five of these cases were found among granite masons. The use of pneumatic tools in masons' work is generally considered to produce more dust than ordinary hand tools, but the dust produced by either type of tools frequently contains at the breathing level over 90 per cent of the very fine particles which are most dangerous. The next most important occupation from the standpoint of the production of silicosis was that of crushermen, in which 8 cases were found, while the remaining 3 cases were found in the groups of getters, drillers, and settmakers.

Comparing the results of the medical examinations in the granite and the sandstone industries it was found that 59 per cent of the sandstone workers and 52.6 per cent of the granite workers had fibrosis, while the proportion of those examined radiologically who showed evidence of silicosis was 42 and 17 per cent, respectively. The higher proportion of actual and suspected cases among the sandstone workers is explained by the higher proportion of free silica in the dust to which the latter workers were exposed. In 18 of the 25 cases among granite masons the silicosis was in the first stage while in the sandstone masons 17 out of 57 cases were in this stage and the remainder in the more advanced stages.

The following table shows the number of workers examined and the number of cases of fibrosis and of silicosis, by occupations:

NUMBER OF WORKERS EXAMINED IN VARIOUS OCCUPATIONS IN THE GRANITE INDUSTRY AND NUMBER OF CASES OF FIBROSIS AND SILICOSIS

Occupation	Clinical examinations		Radiological examinations	
	Number	Cases of fibrosis	Number	Cases of silicosis
Getters	52	22	17	1
Drillers	66	28	25	1
Sett makers	88	56	41	1
Curb dressers	30	13	13	----
Crushermen	105	46	36	8
Building masons	85	50	45	16
Monument masons	54	41	29	9
Polishers	7	4	3	----
Laborers	7	----	2	----
Total	494	260	211	36

[1] Great Britain. Home Office. Report on the occurrence of silicosis amongst granite workers, by Dr. C. L. Sutherland, Dr. S. Bryson, and Dr. N. Keating. London, 1930.
[2] See Labor Review, September, 1929, p. 64.

LABOR LAWS AND COURT DECISIONS

New Jersey Antiunion Contract Law

AN ARTICLE on anti-injunction laws in labor disputes, containing the text of the laws relating to antiunion contracts, was given in the July, 1932, issue of the Labor Review (pp. 66–88). The text of New Jersey antiunion contract law (Acts of 1932, ch. 244) approved June 14, 1932, was not received in time to be included in that article. In order, therefore, to make complete the list of States in which antiunion contract laws have been enacted, the full text of the New Jersey law is reproduced below.

ACTS OF 1932 (CHAPTER 244)

SECTION 1. *Interpretation of act.*—In the interpretation of this act and in determining the jurisdiction and authority of the courts of the State of New Jersey, as such jurisdiction and authority are herein defined and limited, the public policy of the State of New Jersey is hereby declared as follows:

Whereas every human being has under the thirteenth amendment to the Constitution of the United States an inalienable right to the disposal of his labor free from interference, restraint, or coercion by or in behalf of employers of labor, including the right to associate with other human beings for the protection and advancement of their common interests as workers, and in such association to negotiate through representatives of their own choosing concerning the terms of employment and conditions of labor, and to take concerted action for their own protection in labor disputes; and

Whereas under prevailing economic conditions, developed with the aid of governmental authority it is possible for owners of property to organize in the corporate and other forms of ownership association, and the unorganized workers are generally helpless to exercise actual liberty of contract and to protect their freedom of labor, and thereby to obtain acceptable terms of employment and conditions of labor, wherefore it is necessary that they have full freedom of trade-union organization association, and the designation of their representatives to negotiate terms of employment and conditions of labor, and that they be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; therefore, the following definitions of, and limitations upon, the jurisdiction and authority of the courts of the State of New Jersey are hereby enacted.

SEC. 2. *Nature of contracts.*—Every contract, agreement, promise, or undertaking, whether written or oral, express or implied, between any individual, firm, company, partnership, association, or corporation, and any employee or employees or prospective employee or employees of such individual, firm, company, partnership, association, or corporation, whereby—

(*a*) Either party or parties to such contract, agreement, promise, or undertaking, promises, undertakes, or agrees not to join, become, or remain a member of any labor organization or combination of employees or of any organization or combination of employers, or

(*b*) Either party or parties to such contract, agreement, promise, or undertaking, promises, undertakes, or agrees that he, it, or they will withdraw from an employment relation or relation of master and servant or of employer and employee in the event that he, it, or they join, become, or remain a member of any labor organization or combination of employees or of any organization or combination of employers,

Is hereby declared to be contrary to the public policy of the State of New Jersey and wholly void and unenforceable and shall not provide or afford any

basis for the granting of any legal or equitable relief by any court of the State of New Jersey.

SEC. 3. *Constitutionality of act.*—If any portion or provision of this act is unconstitutional or is held or declared unconstitutional, the validity of the remainder of this act shall not be affected thereby.

Laws for Protection of Wages of Employees of Contractors on Public Works

IN ADDITION to the various liens provided to insure to employees payment for labor performed, a number of States provide protection of the wages due to employees of contractors, and also of amounts owing to persons supplying materials, etc., to such contractors. The laws in the various States are quite uniform in their provisions. In general such measures relate most frequently to public works and require that contractors, prior to entering upon the prosecution of any work, shall give a bond to the companies with which the contract is made. The bond runs to the contracting company or official or even to the State, as the law may specify, and is for the use of persons making claim as laborers or material men to whom the contractor is indebted.

Law of District of Columbia

A BILL (Public Act No. 267) was approved July 7, 1932, requiring a contractor to whom any contract for public buildings or other public works is awarded for the District of Columbia, to give a bond for the faithful performance of the contract and for the protection of persons furnishing labor and materials. The bill covers not only the construction but also the alteration, repair, and painting and decorating of any public building.

The provisions of the law are as follows:

Any person or persons entering into a formal contract with the District of Columbia for the construction of any public building, or the prosecution and completion of any public work, or for alteration and/or repairs, including painting and decorating, upon any public building or public work, shall be required, before commencing such work, to execute the usual penal bond in an amount not less than the contract price, with good and sufficient sureties, with the additional obligation that such contractor or contractors shall promptly make payments to all persons supplying him or them with labor and materials in the prosecution of the work provided for in such contract; and any person, company, or corporation who has furnished labor or materials used in the construction or repair of any public building or public work, and payment for which has not been made, shall have the right to intervene and be made a party to any action instituted by the District of Columbia on the bond of the contractor, and to have their rights and claims adjudicated in such action and judgment rendered thereon, subject, however, to the priority of the claim and judgment of the District of Columbia.

If the full amount of the liability of the surety on said bond is insufficient to pay the full amount of said claims and demands, then, after paying the full amount due the District of Columbia, the remainder shall be distributed pro rata among said interveners. If no suit should be brought by the District of Columbia within six months from the completion and final settlement of said contract, then the person or persons supplying the contractor with labor and materials shall, upon application therefor, and furnishing affidavit to the District of Columbia that labor or materials for the prosecution of such work has been supplied by him or them, and payment for which has not been made, be furnished with a certified copy of said contract and bond, upon which he or they shall have a right of action, and shall be, and are hereby, authorized to bring suit in the name of the District of Columbia in the Supreme Court in the District of Columbia, irrespective of

the amount in controversy in such suit, and not elsewhere for his or their use and benefit, against said contractor and his sureties, and to prosecute the same to final judgment and execution: *Provided*, That where suit is instituted by any of such creditors on the bond of the contractor it shall not be commenced until after the complete performance of said contract and final settlement thereof, and shall be commenced within one year after the performance and final settlement of said contract, and not later: *Provided further*, That where a suit is instituted by a creditor or by creditors, only one action shall be brought, and any creditor may file his claim in such action and be made party thereto within one year from the completion of the work under said contract, and not later. If the recovery on the bond should be inadequate to pay the amounts found due to all of said creditors, judgment shall be given to each creditor pro rata of the amount of the recovery. The surety on said bond may pay into the registry of said court, for distribution among said claimants and creditors, the full amount of the sureties' liability, to wit, the penalty named in the bond, less any amount which said surety may have had to pay to the District of Columbia by reason of the execution of said bond, and upon so doing the surety will be relieved from further liability: *And provided further*, That in all suits instituted under the provisions of this act such personal notice of the pendency of such suits, informing them of their right to intervene as the court may order, shall be given to all known creditors, and in addition thereto notice of publication in some newspaper of general circulation, published in the District of Columbia, for at least three successive weeks, the last publication to be at least three months before the time limited therefor.

Laws of Other States

THE following list shows for each of the various States the citation and the type of work to which the law applies.

Alabama.—Public works (Acts of 1927, Nos. 39 and 347).
Arizona.—Street improvements (Rev. Code, 1928, sec. 523).
Arkansas.—Public works, churches, etc. (Crawford & Moses Digest, 1921, secs. 6912–6916; Castle's Annot. Supp., 1931, sec. 6848a).
California.—Public works (Deering's Consol. Code, 1923, Act No. 6423 (as amended by Acts of 1925, p. 538, Acts of 1927, p. 282, and Acts of 1929, p. 1712)); highways (Deering's Consol. Code, Act No. 3276 (as amended by Acts of 1925, p. 729, and Acts of 1927, p. 1396)).
Colorado.—Public works (Comp. Laws, 1921, sec. 9514; Acts of 1923, ch. 155); railroad, reservoir or irrigation construction by private companies or corporations (Comp. Laws, 1921, secs. 6481–6483).
Connecticut.—Railroad construction (Rev. Gen. Stat., 1930, sec. 3660); public structures (Rev. Gen. Stat., 1930, sec. 5109).
Delaware.—Public works (Acts of 1917, ch. 224).
Florida.—Public works (Comp. Gen. Laws, 1927, sec. 5397).
Georgia.—Public buildings and works (Acts of 1916, p. 94).
Hawaii.—Public buildings and works (Rev. Laws, 1925, sec. 1478 (as amended by Acts of 1931, No. 163); sec. 2679 (as amended by Acts of 1931, No. 163)).
Idaho.—Public works, amount over $200 (Comp. Stat., 1919, sec. 7341 (as amended by Acts of 1929, ch. 254)).
Illinois.—Public works (Smith-Hurd Rev. Stat., 1931, ch. 29, secs. 15, 16).
Indiana.—Public works and improvements (Burns' Annot. Stat., 1926, secs. 6116, 6118, 6121 (as amended by Acts of 1931, ch. 168); sec. 6122 (as amended by Acts of 1931, ch. 168)).
Iowa.—Public works (Code, 1931, secs. 10299–10323).
Kansas.—Public works (Rev. Stat., 1923, sec. 60–1413 (as amended by Acts of 1925, ch. 198, and Acts of 1931, ch. 227), sec. 60–1414)); private contracts (Rev. Stat., 1923, sec. 60–1412).
Louisiana.—Any undertaking involving $500 or over (Acts of 1912, No. 167 (as amended by Acts of 1916, No. 262)); drilling oil, gas, etc., wells (Acts of 1916, No. 232); public works (Acts of 1918, No. 224 (as amended by Acts of 1926, No. 271)); buildings generally (Acts of 1922, No. 139 (as amended by Acts of 1924, No. 230)).
Maine.—Railroad construction (Rev. Stat., 1930, ch. 63, sec. 47).
Maryland.—Public works (Annot. Code, 1924, art. 90, sec. 14).
Massachusetts.—Public works (Gen. Laws 1921, ch. 30, sec. 39 (as amended by Acts of 1922, ch. 416); ch. 149, sec. 29 (as amended by Acts of 1929, ch. 110)).
Michigan.—Public works (Comp. Laws, 1929, secs. 13132–13135); railroad construction and repair (Comp. Laws, 1929, sec. 11394).

Minnesota.—Public works (Gen. Stat., 1923, sec. 9700 (as amended by Acts of 1929, ch. 369; Acts of 1931, ch. 229); secs. 9702–9704, 9705 (as amended by Acts of 1929, ch. 369); railroad construction and repair (Gen. Stat., 1923, secs. 7528, 7529).
Mississippi.—Public works (Code 1930, secs. 5971–5976).
Missouri.—Public works (Rev. Stat., 1929, secs. 2890, 2891, 7948).
Montana.—Public works authorities to withhold 20 per cent to meet labor, etc., claims (Rev. Codes, 1921, sec. 1686; contractor's bond required, Laws, 1931, ch. 20).
Nebraska.—Public works (Comp. Stat., 1929, sec. 52–118).
Nevada.—Public buildings or structures when contract price is over $500 (Comp. Laws, 1929 (Hillyer), secs. 3760–3771; Acts of 1931, ch. 208).
New Hampshire.—Public works (Public Acts of 1927, ch. 88).
New Jersey.—Public works (Supp. to Comp. Stat., 1911–1924, secs. 107–149C (1), (2), (3) (as amended by Acts of 1931, ch. 318), (4)).
New Mexico.—Public works (Stat., 1929, secs. 17–201—17–204).
New York.—Canal construction (Cahill's Consol. Laws, 1930, ch. 6, sec. 145; ch. 60, sec. 71).
North Carolina.—Public works (Consol. Laws, 1919, sec. 2445 (as amended by Acts of 1923, ch. 100, and Acts of 1927, ch. 151)).
North Dakota.—Public works (Comp. Laws, 1913, sec. 6832 (as amended by Acts of 1915, ch. 67, and Acts of 1931, ch. 100), secs. 6833–6835).
Ohio.—Public works (Gen. Code, 1932, secs. 2365–1—2365–4, 3298–15h, 6947).
Oklahoma.—Public works (Comp. Stat., 1931, secs. 10983, 10984).
Oregon.—Public works (Code, 1930, secs. 49–701, secs. 67–1101 (as amended by Acts of 1931, ch. 280)).
Pennsylvania.—Public works (Stat., 1920, sec. 15854 (as amended by Acts of 1925, No. 292, and Acts of 1929, No. 114), sec. 15855, sec. 19207 (as amended by Acts of 1921, No. 277; Acts of 1929, No. 490, and Acts of 1931, Nos. 130 and 353); Acts of 1929, No. 446, sec. 564 (as amended by Acts of 1931, No. 146) and No. 175, sec. 2408h (as amended by Acts of 1931, No. 144); Acts of 1931, No. 294; No. 317, sec. 1905; No. 321; and No. 331, sec. 1804); work on borough contracts (Acts of 1927, No. 336 (as amended by Acts of 1931, Nos. 145 and 293)).
Philippine Islands.—Public works (Pub. Laws, 1931, No. 3688).
South Dakota.—Public works (Comp. Laws 1929, secs. 5885, 8215, 8215A).
Tennessee.—Public works (Code, 1932, secs. 7955–7958).
Texas.—Public buildings or works, (Rev. Civ. Stat., 1925, art. 5160 (as amended by Acts of Extra Sess., 1927, ch. 39, and Acts of 1929, ch. 226), secs. 5161–5164).
Utah.—Public buildings or works (Comp. Laws, 1917, secs. 3753–3755).
Vermont.—Railroad construction (Gen. Laws, 1917, sec. 5153).
Virginia.—Public works (Acts of 1932, ch. 275).
Washington.—Public works (Codes and Stats., 1910, secs. 1159, 1160, 1161 (as amended by Acts of 1915, ch. 28); Acts of 1915, ch. 167; Acts of 1921, ch. 166; Acts of 1927, ch. 220).
West Virginia.—Public works (Code, 1931, ch. 38, art. 2, sec. 39).
Wisconsin.—Public works (Stat., 1931, secs. 289.16, 289.53).
Wyoming.—Public works (Rev. Stat., 1931, secs. 95–201—95–204); irrigation work (Rev. Stat., 1931, sec. 122–601 (as amended by Acts of 1931, ch. 73), sec. 122–602 (as amended by Acts of 1931, ch. 73), sec. 122–603).
United States.—Public works (U. S. Comp. Stat., 1916, sec. 6923).

Texas Prevailing Wage Law Declared Unconstitutional

THE District Court of the United States for the Western District of Texas, Austin Division, has held illegal the Texas current wage rate statute (Penal Code, arts. 1580 and 1581) in a recent case brought before it (Christy-Dolph et al. *v.* Gragg, Commissioner of Labor Statistics of Texas; Opinion of Judges).

Several contractors engaged upon construction work on buildings of the University of Texas applied to the court for an injunction to restrain the State labor commissioner from enforcing the prevailing wage law. The contractors alleged that they were under a binding

written contract entered into by the board of regents of the University of Texas to construct six buildings on the grounds of the campus of the university at a total contract price aggregating more than a million dollars. The plaintiff in the case alleged that while carrying out contracts the contractors were employing certain skilled and unskilled laborers at various rates of pay which they had ascertained and determined on investigation prior to the submitting of the bids and entering upon the contracts with the board of regents. The contractors claimed that at the rates they were paying they were able to secure more workmen than really needed. In addition they alleged that the State commissioner of labor, after a public hearing to determine the current rate of wages in the city of Austin, arbitrarily fixed a much higher wage scale than the contractors were paying. The commissioner of labor called upon the contractors to inaugurate the scale of wages fixed by him, and, upon their refusal to do so, threatened to institute suits against them under the statutory law of Texas. As a basis for their suit, the contractors alleged that the current wage statute as applied to them was void and that the enforcement of the law would cause irreparable damage and deprive them of their liberty without due process of law.

Article 1580 of the Penal Code of Texas deals with contracts made by or on behalf of the State or any political subdivision thereof with any corporation, etc., for the performance of any work. The law, in addition to stating that eight hours shall constitute a day's work, provides also, in part, that not less than the current rate of wages for like work in the locality where the work is being performed shall be paid to the laborers, etc., so employed for any political body, and every contract hereafter made must comply with the requirements of the statute. Article 1581 of the code refers mainly to the penalties for violations of the act.

The contractors assailed the provisions of article 1580 on the ground that the term "not less than the current rate of per hour wages for like work" and the term "in the locality where the work is being performed" are vague, indefinite, and uncertain and no definite criterion is furnished by which they can be guided. They state that the enforcement of such a statute would deprive them of their liberty and property without due process of law and also that the statutes provide no ascertainable standard of guilt.

The district court of the United States, in an opinion by District Judge McMillan, said that there was no doubt that the present case was ruled by a decision of the United States Supreme Court in an Oklahoma case (Connally *v.* General Construction Co., 269 U. S. 385) in which the decision was adverse to the law.[1] That case was practically identical with the one under consideration and was challenged on substantially the same grounds. It is perfectly obvious in the present case, he said, that—

> From the findings of fact which have heretofore been made that the wages paid for labor such as that involved here, even adopting the city of Austin as the locality intended, varied to a great extent. The term "current rate of wages," as used in the statute and as the same must be applied to the plaintiffs in this particular case, furnishes absolutely no definite criterion by which the parties concerned can be guided in determining whether they are or are not complying with the law. Furthermore, it is equally obvious that the term "locality where the work is being performed," as used in the statute, fixes no

[1] See U. S. Bureau of Labor Statistics Bul. No. 417, p. 139.

definite area of which all parties may be apprised, nor does the evidence here aid the matter any, as the testimony leaves the question of the locality as vague and indefinite as the statute itself.

The commissioner of labor, however, relied upon the decision in the case of Ruark *v.* International Union of Operating Engineers (146 Atl. 797). This case arose in the Supreme Court of Maryland, and that court refused to follow the reasoning of the Supreme Court of the United States with regard either to the "current rate of per diem wages" or "the locality where the work is performed." In regard to this, Judge McMillan pointed out the expressions in the Ruark case were merely dicta and were so recognized even by the Maryland court delivering the opinion. He cited several cases in which the Connally case was referred to with approval, and in none of these cases was it shown that the United States Supreme Court had indicated the slightest intention of receding in any particular from the doctrines announced in the Connally case.

The commissioner of labor relied on two other sections of the Texas statutes to substantiate his contention in the case. Articles 5150 and 5179, he contended, gave him the power to hold a hearing and to determine the current wage rate in the particular locality. The court, however, was of the opinion that the statutes last mentioned neither accomplished nor attempted to accomplish any such result as that alleged by the commissioner. They were merely intended, the court said, to relate to the supervision of sanitary and health conditions in designated places.

The court, in concluding the opinion, stated that there was nothing in articles 1580 and 1581 of the Criminal Code which says that the current rate of wages shall be the rate fixed by the commissioner of labor after a hearing. The employee, it was stated, would be in no way protected under the statutes by following the judgment of the commissioner as to what constituted the proper rate and—

> He would be just as safe in following his own opinion, as in the last analysis, under the statutes attacked, the question as to what is the current rate in the locality would have to be determined by a court or jury in each case as it came up. His only protection in following the decision of the commissioner would lie in the fact that the commissioner himself might not elect to institute the prosecution. The rights of the parties can not be permitted to hang on such an arbitrary and slender thread as this.

It was pointed out in the Connally case that the commissioner of labor of Oklahoma attempted to make an investigation concerning the wages paid, just as the commissioner of labor of Texas did in this case. The Oklahoma commissioner in the Connally case claimed to be acting under a statute of the State which imposed on him the duty of carrying into effect all labor laws. As in the Connally case, so also in this case, after the wage scale had been fixed, the commissioner threatened a prosecution. The Supreme Court of the United States in the Connally case brushed aside the contentions of the commissioner of labor in Oklahoma, holding that the statute on its face was unconstitutional.

Judge McMillan was of the opinion that his court was bound by that decision, and therefore held that the Texas prevailing wage rate law was also unconstitutional.

The commissioner of labor statistics of Texas, in a communication to the United States Bureau of Labor Statistics, states that the case will be appealed to the Supreme Court of the United States.

Repeal of National Trades-Union Act

THE national trades-union law was repealed by an act of Congress (Public Act No. 306) on July 22, 1932. The original law was passed on June 29, 1886 (24 U. S. Stat. L. 86), and permitted the incorporation of associations of working people in the following terms:

> For the purpose of aiding its members to become more skillful and efficient workers, the promotion of their general intelligence, the elevation of their character, the regulation of their wages and their hours and conditions of labor, the protection of their individual rights in the prosecution of their trade or trades, the raising of funds for the benefit of sick, disabled, or unemployed members, or the families of deceased members, or for such other object or objects for which working people may lawfully combine, having in view their mutual protection or benefit.

According to statements made in Congress, no trade-union has ever incorporated under the law and no actual benefit has accrued to the trade-unions. Instead, private corporations fraudulently seeking to do business under a Federal statute have sprung up in places outside the jurisdiction of the law, which was the District of Columbia. These companies were never intended to be authorized by this law, and much harm was thought to have been done from the enactment of the original law. The effect of repealing the act, therefore, is to prevent the continuance of such fraudulent practices.

Extension of Appropriation for Federal Vocational Rehabilitation

THE Seventy-second Congress passed a bill (Public Act No. 222), approved June 30, 1932, which amended an act of June 2, 1920 (41 U. S. Stat. L. 735), as subsequently amended, entitled "An act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment."

The new act is merely an extension of the original vocational rehabilitation law of 1920 and provides appropriations for the use of the States to June 30, 1937. This act does not become effective, however, until July 1, 1933, when an appropriation of $1,000,000 is provided for each of the fiscal years ending June 30, 1934, 1935, 1936, and 1937. The appropriations for the use of the States for vocational rehabilitation of persons injured in industry, for the fiscal year ending June 30, 1933, was provided for under the provisions of chapter 414 of an act of June 9, 1930 (46 U.S.Stat. L. 524). The sums are to be allotted to the States as heretofore, namely, in the proportion which their populations bear to the total population of the United States according to the last preceding United States census.

Section 3 of the act as approved amends section 5 of the act of June 2, 1920, as amended (U. S. C., title 29, sec. 34), by providing that the Secretary of the Treasury shall hereafter pay to the States the allotted amount of money in equal semiannual payments on the 1st day of July and January of each year instead of quarterly as formerly.

Federal Home Loan Bank Law

THE home loan bank law approved on July 22, 1932 (Public Act No. 304), provides in general for a method of financing home building and home loans. Activity in home building and a consequent increase in employment are expected to result from the law.

A Federal Home Loan Bank Board is provided for, composed of five members appointed by the President. The persons chosen to serve are: Franklin W. Fort, New Jersey, chairman; William E. Best, Pennsylvania; Dr. John M. Gries, Ohio; Nathan Adams, Texas; and H. Morton Bodfish, Illinois.

The act provides that the board shall divide the United States into from 8 to 12 districts, in each of which a Federal home loan bank shall be established.

Membership in these district banks is open, upon subscription of a certain amount of the bank's stock, to building and loan associations, savings and loan associations, cooperative banks, homestead associations, insurance companies, or savings banks.

Any institution eligible to membership may borrow from the home loan bank on notes secured by home mortgage collateral. The resources of the home loan banks, on the other hand, are secured by the issuance of notes and debentures, which are backed by the obligations of members, mortgages pledged as securities, and the capital of the home loan banks.

The management of each of the home loan banks is vested in a board of 11 directors, all of whom must be citizens of the United States and residents of the district in which the bank is located. Two of these directors are to be appointed by the Federal board; the remaining 9 are (after 1932) to be elected by the member institutions, and each director so elected must be a director of a member institution.

Analysis of Act

Title of act.—Federal home loan bank act.

Creation of Federal board.—The board is to consist of five members appointed by the President, at a salary of $10,000 each.

Duties and powers.—The board is directed to supervise the home loan banks; make rules governing them; levy a semiannual assessment to cover its expenses; require reports (at least semianually) of the condition of the home loan banks, and issue periodic statements regarding them; and issue annual reports to Congress. Other duties of the board include the periodic examination of State laws governing conditions under which banking institutions are permitted to be formed; the promulgation of rules relative to assignments, etc., of the obligations of borrowing institutions to the bank; and the approval and determination of interest rates to be paid by the home loan banks.

Establishment of home loan banks.—Not less than 8 nor more than 12 districts to be formed, in each of which a home loan bank shall be established.

Membership.—Any building and loan association, savings and loan association, cooperative bank, homestead association, insurance company, or savings bank may apply for membership, provided it is organized under a State or Federal law, or is subject to State inspection and regulation, and makes long-term home mortgage loans. Any home owner unable to obtain mortgage money from any other source may obtain it from any home loan bank organized under the act, as long as the Federal Government holds stock in the bank. Any building and loan association not subject to regulation may become eligible to membership by submitting to such regulation and inspection. National banks, trust companies, or other banking organizations are not permitted to subscribe for stock of any Federal home loan bank.

Capital stock, etc.—Each district home loan bank shall have a minimum capital of $5,000,000, with shares of $100 par value. The original stock subscription for

membership must be an amount equal to 1 per cent of the aggregate unpaid principal of the subscriber's home mortgage loans, with a minimum subscription of $1,500. Any part of the minimum capital not subscribed for by members within 30 days after the books have been opened for subscription must be taken by the Secretary of the Treasury; for this purpose the sum of $125,000,000 is made available from funds of the Reconstruction Finance Corporation. Stock subscriptions may be paid for either in cash, at the time of application, or in installments, one-fourth at time of filing of application and one-fourth every four months. When the amount of capital of a home loan bank paid in by members equals the amount paid in by the Secretary of the Treasury, the bank must apply toward the payment and retirement of the shares held by the Government 50 per cent of all sums paid in as capital until all of the capital stock held by the United States is retired at par.

A member may withdraw six months after filing intention to do so. The board may also remove any member bank for cause.

In the distribution of dividends, all stock of any home loan bank shall share, and no preference is allowed, except that stock subscribed for by the United States is entitled to dividends at the rate of 2 per cent annually, cumulative from the investment date.

Advances by home loan banks.—Any institution eligible for membership has the right to apply for advances. The home loan banks are authorized to make advances upon the security of home mortgages, within certain restrictions.

Limitations on advances.—If the loan is secured by an amortized home mortgage, or shares of stock are pledged as security, both of which run for eight years or more, 60 per cent of the unpaid principal, but not to exceed 40 per cent of the value of the real estate, may be advanced. If the loan, however, is secured by a mortgage given in respect to any other home mortgage loan, the amount of the advance is limited to 50 per cent of the unpaid principal or not to exceed 30 per cent of the real-estate value. The value of the real estate is of the time the advance is made. Advances are to be made upon the secured note or obligation of the borrowing institution, which is to bear interest at a rate fixed by the board. An institution applying for an advance must agree to pay off all advances, with interest and costs according to the terms of the agreement.

Additional limitations.—A home mortgage shall not be accepted as collateral for an advance if the mortgage has more than 15 years to run, or if the real-estate value exceeds $20,000, or if the mortgage is overdue more than six months when presented.

Powers, etc., of banks.—Federal home loan banks are empowered to borrow money and to issue bonds and debentures, etc., and are jointly and severally liable for their payment. All such obligations are exempt from taxation, both as to principal and interest, but are not obligations of the United States and are not guaranteed by the Federal Government. Each home loan bank must carry to a reserve account, semiannually, 20 per cent of the net earnings until the reserve equals the paid-in capital, after which only 5 per cent is required to be added. A Federal home loan bank is not permitted to transact a general banking business or any business not expressly authorized by the act.

Violations.—For violations of the act, penalties are provided by fine or imprisonment, according to the degree and kind of guilt.

Extension of British Coal-Mine Legislation

THE Ministry of Labor Gazette, in its issue for June, 1932 (p. 208), states that the coal mines bill, 1932, had passed its third reading in the House of Commons and had gone to the House of Lords. The principal purpose of the bill is to continue two earlier laws which would otherwise have lapsed this year. It first prolongs until December 31, 1937, Part I of the coal mines act, 1930, which would normally expire at the end of this year. This regulates the production, supply, and sale of coal in Great Britain by means of a central coordinating scheme, with district schemes operating in the several coal fields.[1]

[1] For an account of the organization and effectiveness of schemes formed under this legislation, see Labor Review, November, 1931, p. 81.

The second part provides that the 7½-hour day shall continue in effect until the coming into operation of an act to ratify the Geneva convention. This convention would have the effect of limiting the hours of underground workers in coal mines to 7¾ hours, "bank to bank," which is equivalent to 7¼ hours under the methods of calculation used in Great Britain. The act of 1931, which is modified by this section, had provided that the hours of underground work should be 7½ a day until July 7, 1932, or until the coming into effect of an act to give force to the Geneva convention, whichever period should prove to be the shorter.

INDUSTRIAL ACCIDENTS

Accidents in Cement Manufacturing in 1931

STATISTICS of accidents occurring in the cement manufacturing industry in 1931, compiled by the Portland Cement Association and published in its Accident Prevention Magazine for the second quarter of 1932, show a reduction in frequency rates but an increase in severity rates in 1931 as compared with 1930.

The following table covers the 5-year period 1927 to 1931, converted to conform to the standard measurement of 1,000,000 man-hours' exposure for frequency rates and 1,000 man-hours' exposure for severity rates:

TABLE 1.—NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES IN CEMENT MANUFACTURING, 1927 TO 1931, BY YEARS

[Frequency rates are based on 1,000,000 hours' exposure; severity rates on 1,000 hours' exposure]

Year	Number of establishments reporting	Number of man-hours	Fatal cases			Nonfatal cases			Total cases		
			Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate
1927	136	93,871,081	30	0.32	1.92	1,436	15.30	1.07	1,466	15.62	2.99
1928	136	85,796,645	33	.39	2.31	985	11.48	1.41	1,018	11.87	3.72
1929	138	75,739,429	37	.49	2.93	778	10.27	1.28	815	10.76	4.21
1930	128	69,727,954	18	.26	1.55	486	6.97	.92	504	7.23	2.47
1931	100	38,099,084	17	.45	2.68	237	6.22	.63	254	6.67	3.31

The table shows a continuous yearly decline in frequency rates for all cases for the period, but severity rates increased in the years 1928 and 1929, dropped during 1930, and increased again during 1931 above the 1927 figure.

Table 2 shows the relation of accidents to length of service for the several years and affords a study of the liability of inexperienced workers (i. e., with less than six months' service). The improvement during the year 1931 over previous years may be attributed to the fact that a relatively larger number of more experienced workers were employed.

TABLE 2.—FATAL AND NONFATAL ACCIDENTS IN CEMENT MANUFACTURING, ACCORDING TO LENGTH OF SERVICE, 1927 TO 1931

Length of service	1927	1928	1929	1930	1931 [1]
Less than 6 months	347	273	205	92	26
6 months to 1 year	139	97	69	38	5
1 year to 2 years	170	119	87	52	10
2 years to 5 years	250	208	130	76	56
5 years to 10 years	151	153	110	56	43
10 years and over	86	97	100	57	59
Total	1,143	947	701	371	199

[1] Taken from 199 reports out of 214.

The following table shows the cause of injury and the nature of injury for the 214 accidents which occurred in 1931:

TABLE 3.—DISTRIBUTION OF ACCIDENTS IN CEMENT MANUFACTURING, BY NATURE OF INJURY AND CAUSES OF ACCIDENTS, 1931

Item	Number of cases	Item	Number of cases
Nature of injury:		Causes of accidents—Continued.	
Fatalities	17	Explosions	11
Permanent partial disabilities	23	Falling objects	41
Fractures	49	Falls	37
Severe cuts, bruises, burns, etc	60	Flying material	12
Infections	20	Heat	1
Eye injuries, temporary	14	Hot substances	18
Minor cuts, bruises, burns, etc	31	Machinery	21
		Objects handled	32
Total	214	Strains from lifting	8
		Trucks, rolling stock, etc	12
Causes of accidents:		Other causes	10
Caught between objects	10		
Cement dust	1	Total	214

The data show an increase in the average days lost per accident from 40.7 in 1930 to 42.7 in 1931, while the average number of accidents per plant declined from 3.43 in 1930 to 2.14 in 1931.

Infected Injuries in Maine, 1931

ONE of every 13 injuries reported in 1931 involved infections, according to the May, 1932, issue of the Industrial Safety Bulletin, published by the Department of Labor and Industry of Maine.

Figures taken from a study of the 13,912 injuries, reported to the industrial commission during 1931, show that the highest percentage in the 25 industries listed occurred in the canning industry, 22.6 per cent of all injuries developing infection. The shoe industry ranked second, with 18 per cent, and the laundry industry third, with 15.3 per cent. The lowest percentage was found in woods operations, 1.57 per cent. Bridge construction, with 2.42 per cent, and boat and canoe building, with 2.78 per cent, were the next lowest. Nine of the industries were above the average for all industries, which was 7.82 per cent, while the other 16 industries showed lower percentages.

Attention is called to the facts that the "trivial" scratches and punctures of one month are sometimes the amputations of the next month, and that freedom from infection is had only when the highest plant authority establishes a plant first-aid policy and demands compliance therewith.

The following table shows the percentages of infections following injury in the various industries:

PROPORTION OF INDUSTRIAL INJURIES INFECTED IN MAINE, 1931, BY INDUSTRY

Industry	Per cent of injuries infected	Industry	Per cent of injuries infected
Canning	22.60	Public employees	5.32
Shoes	18.00	Pulp and paper	4.98
Laundries	15.30	Printers	4.77
Mercantile	11.68	Building construction	4.52
Hotel-restaurant	11.14	Quarrying—finishing	4.37
Cotton	9.70	Road construction	3.27
Woolen	8.96	Public utilities	3.10
Miscellaneous	8.90	Structural steel	2.82
Woodworking	8.10	Boats and canoes	2.78
Garage	7.60	Bridge construction	2.42
Shipbuilding	7.57	Woods operations	1.57
Foundry and machine shops	6.34		
Lime—cement	6.03	All industries, average	7.82
Lumber	5.75		

Accidental Deaths in New York, 1929–30

BULLETIN 175, prepared by the division of industrial hygiene, New York Department of Labor, presents a summary of fatalities and their causes for the year ending June 30, 1930.

The total accident cases closed during the year numbered 109,848, of which 1,348, or 1.2 per cent, were fatal and permanent total disability cases.

Table 1 shows the proportion of injuries which resulted in death or permanent disability and the industry groups in which these occurred, while Table 2 shows the causes of the 1,348 fatal and permanent total disability cases.

TABLE 1.—COMPENSATED DEATH AND PERMANENT TOTAL DISABILITY CASES IN NEW YORK, 1929–30, AND RELATION TO TOTAL CASES, BY INDUSTRY GROUPS

Industry group	Number of cases—all types	Death and permanent total disability cases	
		Number	Per cent of total cases
Manufacturing	40,823	296	0.7
Construction	24,576	404	1.7
Transportation and public utilities	16,941	298	1.8
Clerical and personal service	14,124	227	1.6
Trade	11,172	68	.6
Other	2,212	55	2.3
Total	109,848	[1] 1,348	1.2

[1] Includes 40 permanent total disabilities.

TABLE 2.—COMPENSATED FATAL AND PERMANENT TOTAL DISABILITY CASES IN NEW YORK, 1929-30, BY CAUSE OF INJURY

Cause of injury	Number of cases	Per cent of total
Handling objects and tools	112	8.31
Falls of workers	334	24.78
Mechanical appliances	224	16.62
Vehicles	332	24.63
Falling objects	128	9.49
Dangerous and harmful substances	164	12.16
Slipping on and striking objects	9	.67
Other or indefinite	45	3.34
Total	1,348	100.00

A special study has been made of 100 selected fatalities reported from plants employing 48,114 workers, or an average of 481 workers per fatality. Among the various possible factors investigated was the size of the plant in relation to fatality. Table 3 shows that the relative number of deaths in small plants was very high, but it is felt that this can not be considered conclusive without further investigation.

TABLE 3.—DISTRIBUTION OF 100 FATALITIES IN NEW YORK, 1929-30, BY SIZE OF PLANT

Number of employees	Fatalities in plants of specified size	Total workers employed	Per cent fatalities are of workers exposed	Average number of employees per fatality
1 to 25 employees	31	345	8.99	11
26 to 50 employees	5	178	2.81	36
51 to 100 employees	16	1,202	1.33	75
101 to 250 employees	15	2,546	.59	170
251 to 500 employees	9	3,150	.29	350
501 to 1,000 employees	11	8,025	.14	730
1,001 employees or over	13	32,668	.04	2,513
Total	100	48,114	.21	481

All of the persons involved in this special study were men, and their ages ranged from 15 to 79 years, with an average of 42, which is considerably over the average age of workers in the manufacturing industry as a whole. Seven were under 20 years, 40 were between 20 and 40 years, 35 were between 40 and 60 years, and 18 were over 60 years.

The data disclose a relatively high rate of accidents among the older employees, and also the surprising fact that 10 of the 100 killed were foremen, an occupation that ordinarily would demand consideration for safety.

WORKMEN'S COMPENSATION

Compensation Denied for Injuries Received in Employment Not Incidental to Office

A SOMEWHAT unusual angle of workmen's compensation occurred in New Jersey in the case of Van Devander *v.* West Side M. E. Church (160 Atl. 763).

A claim for workmen's compensation was made by a minister who was pastor of the West Side Methodist Episcopal Church in Jersey City. The Workmen's Compensation Bureau of New Jersey awarded compensation for injuries alleged to have been sustained as the result of an accident arising out of and in the course of his employment.

An appeal from the bureau's decision was made to the Supreme Court of New Jersey. It appeared that the minister was injured on November 11, 1930, while removing a heavy barrel from the cellar of the parsonage. The question presented to the supreme court was whether or not the accident was one arising out of and in the course of the employment. The court reviewed the contract of employment and the method by which the minister was to carry on his work in the parsonage. He was granted a stated salary, and out of this amount the sum of $700 was deducted, presumably for rent, etc. As no janitor service was specified in the contract, he was required to do all work about the house, including the care of the furnace, himself. According to his own testimony, he was required to keep the house in condition for use by the members of his parish, as the house was used for various parish meetings.

The Supreme Court of New Jersey set aside the award of the compensation bureau and held that it was an error to hold that the accident arose out of the employment. The court reasoned that the claimant was performing a household duty for his own benefit, which he would have been required to perform if he lived in a house owned by himself. The court cited the case of Bryant *v.* Fissell (86 Atl. 458), in which the workmen's compensation act was said to cover only risks which are within the ordinary scope of the particular employment in which the workman is employed. The court was of the opinion that the duty which the claimant was performing when injured was not incidental to his office. The court also cited a case in New York State (Lauterbach *v.* Jarett, 178 N. Y. S. 480), in which a janitress was injured by the falling of plaster while in her own apartment, which was furnished to her. The court in that case held that in no sense could it be said that she was janitress of her own apartment merely because the accident happened in the building in which she was acting as janitress; that she was acting in a dual capacity; and that her personal relations to her family who were living in one of the apartments were distinct and separate from her relations to her employers.

The New Jersey Supreme Court was of the opinion that the reasoning in the New York case was sound and that the minister in the case under consideration was at the time of the accident performing an act personal to himself and not connected with his employment. It therefore set aside the judgment of the Workmen's Compensation Bureau of New Jersey awarding compensation.

Report of Workmen's Compensation Board of British Columbia

THE report of the Workmen's Compensation Board of the Province of British Columbia for the calendar year 1931 shows a reduction of 22 per cent in the number of accidents causing a time loss of more than three days. A total of 25,877 claims was filed in 1931, as compared with 33,285 in 1930. Fatal accidents, however, show a decrease for the year of 55 per cent, with a total of 125 in 1931, as against 219 in 1927, 251 in 1928, 253 in 1929, and 277 in 1930.

The report also shows that about 2,500 first-aid cases were reported in 1931, for which no claims were filed, as the time loss involved did not exceed three working-days.

A distribution of lost-time accidents for 1931 places 30 per cent of them in the lumber industry; construction and general manufacturing were next, each charged with 11 per cent of the total. The average cost of all temporary disability cases is given as $95.62.

The following table summarizes the number of cases closed in 1931, with amount of compensation awarded, by industry group, and the extent of disability:

COMPENSABLE ACCIDENT CASES CLOSED IN BRITISH COLUMBIA IN 1931 AND AMOUNT OF COMPENSATION AWARDS, BY INDUSTRY GROUP AND EXTENT OF DISABILITY

Industry group	Extent of disability					
	Fatal		Permanent partial		Temporary total	
	Number of cases	Compensation awards	Number of cases	Compensation awards	Number of cases	Compensation awards
Logging, lumber, and paper	46	$82,792.73	293	$337,877.41	3,806	$426,632.41
Coal mining	4	33,024.61	37	45,485.02	709	64,166.73
Metal mining, quarrying, stone and clay products	10	34,644.62	44	50,153.91	551	66,954.98
Iron and steel products	2	5,455.46	35	26,265.83	516	40,860.25
General manufacturing	3	11,403.13	64	64,028.15	1,385	83,821.92
Construction and shipbuilding	4	34,570.71	78	92,350.88	1,377	147,162.43
Public utilities	5	17,425.70	29	38,377.86	322	40,380.37
Navigation and stevedoring	5	30,681.13	39	51,741.23	664	85,219.40
Canadian Pacific system	16	74,403.79	42	40,028.37	1,001	81,703.91
Grand Trunk Pacific and Canadian National Railways	4	11,169.15	13	23,968.57	245	22,575.17
Provincial employees	7	20,095.75	31	34,646.05	863	60,881.77
Municipal employees	1	16,586.17	28	34,263.63	954	59,822.40
Fishing and products	1	100.00	21	25,517.98	249	29,617.57
Explosives and chemicals	0		0		7	747.22
Great Northern system	0		1	807.54	10	986.14
Dominion employees	1	100.00	1	568.27	37	3,043.00
Northern Alberta Railways	0		0		9	292.47
Total	109	372,452.95	756	866,080.70	12,705	1,214,868.14

COOPERATION

Development of Cooperative Credit Societies in 1931

BELOW are given the results of an inquiry by the Bureau of Labor Statistics as to the 1931 operations of credit societies in the United States. The data were in all cases obtained from the State office to which the credit union law requires the societies to report. Inquiries were directed to 32 States. Data were received from 20 States, and, with the exception of Alabama, Indiana, and North Carolina, include all of the States which are the most important in credit-union development.

As is seen, data are lacking on important points in several of the States. This is because the law does not require the societies to report on these points.

Table 1 shows that the credit unions in the 18 States which reported as to number of members had a combined membership of nearly 270,000. The combined share capital in 19 States was over $15,000,000 and the total resources amounted to more than $33,000,000.

Massachusetts still remains the leading credit-union State; but while New York still holds second place in point of number of societies, Illinois is rapidly gaining and as regards aggregate share capital exceeded New York at the end of 1931.

TABLE 1.—MEMBERSHIP AND RESOURCES OF CREDIT UNIONS, 1931, BY STATES

State	Number of credit unions	Number of members	Share capital	Guaranty fund	Total resources
California	37	8,521	$449,071	$16,886	$624,957
Florida	6	854	99,887	----------	107,792
Georgia	44	7,838	456,884	30,808	627,072
Illinois	92	19,423	1,079,155	52,539	1,198,173
Iowa	62	5,558	265,843	8,608	295,796
Kansas	13	1,728	46,647	334	58,329
Massachusetts	302	109,592	8,363,664	838,743	13,874,270
Michigan	37	6,254	507,415	19,249	631,413
Minnesota	75	15,147	648,758	29,547	1,042,177
Missouri	82	9,825	(1)	(1)	(1)
Montana	3	140	1,208	----------	1,348
Nebraska	23	3,214	103,639	3,823	182,066
New Hampshire [2]	5	(1)	97,259	36,424	1,921,860
New Jersey	18	3,658	237,570	[3] 17,468	265,770
New York	113	58,585	1,051,035	871,127	9,251,835
Rhode Island	15	10,011	577,694	74,680	1,949,154
Texas	35	3,401	144,481	894	214,902
Virginia	33	(1)	451,084	16,341	583,372
West Virginia	10	2,302	124,403	7,191	145,873
Wisconsin	52	2,330	611,655	25,161	669,184
Total	1,057	268,381	15,317,442	2,049,823	33,645,343

[1] Not reported. [2] For year ending June 30, 1931. [3] Surplus and guaranty fund.

Table 2 shows that the loans made during 1931 in the 11 States reporting on this point amounted to over $19,000,000, while the loans outstanding at the end of the year in 19 States aggregated more than $26,000,000.

Considerably over half a million dollars was returned in dividends in 13 States for which data were obtained.

TABLE 2.—LOANS OF CREDIT UNIONS DURING 1931, AND DIVIDENDS PAID, BY STATES

State	Number of borrowers	Loans		Dividends paid	
		Made during year	Outstanding at end of year	Amount	Rate (per cent)
California	(1)	(1)	$553,833	$17,620	(1)
Florida	(1)	$161,137	94,520	5,919	[2] 9.3
Georgia	(1)	(1)	495,334	34,532	[2] 7.5
Illinois	10,912	1,701,108	1,004,590	57,789	[2] 5.4
Iowa	2,916	368,312	225,551	11,920	[2] 5.0
Kansas	749	84,979	52,083	811	[2] 6.4
Massachusetts	55,970	14,526,730	11,043,189	442,469	[2] 6.2
Michigan	3,315	699,041	525,727	3,799	[2] 6.2
Minnesota	6,811	(1)	830,400	(1)	6.0–7.0
Missouri	(1)	(1)	(1)	(1)	[2] 6.5
Montana	16	(1)	947	(1)	(1)
Nebraska	1,828	300,506	151,347	4,143	3.0–6.0
New Hampshire [3]	(1)	259,014	1,487,103	(1)	(1)
New Jersey	2,414	149,134	62,688	9,908	3.0–8.0
New York	(1)	(1)	6,880,491	(1)	(1)
Rhode Island	3,690	585,526	1,791,786	(1)	(1)
Texas	1,985	(1)	164,936	1,427	(1)
Virginia	(1)	(1)	505,811	(1)	(1)
West Virginia	1,442	(1)	124,667	5,614	[2] 4.0
Wisconsin	1,372	493,884	552,888	29,398	(1)
Total	93,420	19,329,371	26,547,891	625,349	----

[1] Not reported. [2] Average. [3] For year ending June 30, 1931.

Development Since 1929

THE bureau's previous study of credit unions (for 1929) showed a total, in all States in which credit cooperation has taken root, of 974 societies, 785 of which were in the States for which the bureau has obtained 1931 data. During the two years 1929–1931 the number of societies in these States increased 34.6 per cent. The average membership per society, however, fell from 345 to 263.

The greatest progress as regards number of societies took place in Illinois, where 51 new societies were formed. Gains of 26, 32, 38, and 39 societies were made in Iowa, Minnesota, Wisconsin, and Missouri, respectively. New York was the only State reporting in which there were fewer credit unions in 1931 than in 1929.

Increases in aggregate membership were registered in every State except Montana and New York; in these the membership fell.

TABLE 3.—DEVELOPMENT OF CREDIT UNIONS AS REGARDS NUMBER OF SOCIETIES, MEMBERSHIP, AND SHARE CAPITAL, 1929–1931

State	Total number of societies		Membership						Share capital per member [1]	
			1929		1931		Average per society			
	1929	1931	Number of societies reporting	Members	Number of societies reporting	Members	1929	1931	1929	1931
California	19	37	16	3,079	37	8,521	192	230	$36	$53
Florida	1	6	1	226	6	854	226	142	144	117
Georgia	39	44	39	7,029	44	7,838	180	178	47	58
Illinois	41	92	32	8,230	92	19,423	257	211	52	56
Iowa	36	62	27	2,723	62	5,558	101	90	40	48
Kansas	10	13	9	537	13	1,728	60	133	12	27
Massachusetts	299	302	299	107,044	302	109,592	358	363	96	76
Michigan	29	37	20	3,963	37	6,254	198	169	60	81
Minnesota	43	75	43	8,943	75	15,147	208	202	37	43
Missouri	43	82	42	7,470	82	9,825	178	120	[2]	[2]
Montana	1	3	1	150	3	140	150	47	20	9
Nebraska	7	23	5	737	23	3,214	147	140	21	32
New Hampshire	3	5	2	4,042	-------	[2]	2,021	------	11	[2]
New Jersey	11	18	7	2,937	18	3,658	420	203	34	65
New York	125	113	125	70,598	113	58,585	565	518	143	18
Rhode Island	13	15	9	9,062	15	10,011	1,007	667	63	58
Texas	12	35	4	247	35	3,401	62	97	19	42
Virginia	30	33	18	5,984	-------	[2]	332	------	35	[2]
West Virginia	9	10	6	1,591	10	2,302	265	230	36	54
Wisconsin	14	52	9	1,697	52	2,330	189	45	98	263
Total	785	1,057	714	246,289	1,019	268,381	345	263	------	57
United States	974	------	828	264,908	-------	-------	320	------	92	------

[1] Based on societies reporting as to both membership and capital. [2] Not reported.

Table 4 shows the total and average loans granted in 1929 and 1931. In 1929 data as to total amount of loans granted during the year were obtained for 720 societies, whose combined loans were $24,548,353.[1] Of these societies, 309 (43 per cent) were in the States for which data have been obtained for 1931; their loans in 1929 totaled $22,482,601. The 625 societies for which 1931 data were secured made loans during that year amounting to $19,329,371.

In most States the average business (i. e., loans made) per society declined. Of the 10 States for which data on this point were obtained for both years, only 2 (Kansas and Michigan) showed an increase. For the whole group, average loans per society declined 55 per cent.

[1] Excluding Massachusetts, data for which as to loans granted were only estimated.

TABLE 4.—TOTAL LOANS GRANTED, AND AVERAGE AMOUNT PER LOAN, 1929 AND 1931

State	Total loans granted				Average loans per society		Average amount of loan per borrower [1]	
	1929		1931					
	Number of societies reporting	Amount	Number of societies reporting	Amount	1929	1931	1929	1931
California	16	$208, 520	-------	(2)	$13, 033	(2)	$118	(2)
Florida	1	40, 000	6	$161, 137	40, 000	$26, 856	172	------
Georgia	21	537, 109	-------	(2)	25, 577	---------	124	------
Illinois	32	863, 306	92	1, 701, 108	26, 978	18, 490	155	$156
Iowa	27	170, 755	62	368, 312	6, 324	5, 941	133	126
Kansas	8	7, 659	13	84, 979	957	6, 537	61	113
Massachusetts	-------	(3)	302	14, 526, 730	---------	48, 102	------	260
Michigan	20	372, 392	37	699, 041	18, 620	18, 893	------	211
Montana	1	7, 500	-------	(2)	7, 500	---------	326	------
Nebraska	5	66, 252	23	300, 506	13, 250	13, 065	143	164
New Hampshire	2	144, 612	5	259, 014	72, 306	51, 803	36	------
New Jersey	7	130, 194	18	149, 134	18, 599	8, 285	119	62
New York	125	18, 365, 000	-------	(2)	146, 920	---------	439	------
Rhode Island	9	679, 936	15	585, 526	75, 548	39, 035	233	159
Texas	4	5, 257	-------	(2)	1, 314	---------	57	------
Virginia	17	510, 348	-------	(2)	30, 020	---------	93	------
West Virginia	5	107, 442	-------	(2)	21, 488	---------	139	------
Wisconsin	9	266, 319	52	493, 884	29, 591	9, 498	303	360
Total	309	22, 482, 601	625	19, 329, 371	68, 101	30, 927	------	227

[1] On basis of societies reporting both number of borrowers and amount of loans granted.
[2] Not reported.
[3] Massachusetts data excluded because only estimated.

Credit Pool for Cooperative Societies

THE establishment of a central credit fund from which cooperative societies may borrow was decided upon at a meeting of the Eastern States Cooperative League held in Fitchburg, Mass., May 21 and 22, 1932.[1]

It was pointed out at this meeting that certain cooperative societies are in difficulty "not because of want of assets but because these assets are not liquid," and they find it difficult to obtain loans from banks under the present policies of the latter. In order to help these societies and keep them from being forced to suspend business, it was suggested that a "credit pool" be formed among the members of the league.

Under the plan the funds for the pool will be raised by subscriptions by cooperative societies and other interested nonprofit organizations and by individuals. The fund will be managed by a board of trustees appointed by the board of directors of the Eastern States Cooperative League.

Loans will be made only to societies which are members of the league and only on unanimous vote of the trustees, and all must be secured by "tangible assets." The rate of interest will be the lowest obtainable, but a small commission will be charged by the trustees, to cover administration costs, including bookkeeping.

The terms and conditions of repayment of loans will be specified by the trustees on the basis of sound banking practice.

[1] Data are from Cooperation (New York), July, 1932.

The deposits made by individuals will be given priority in claim over those of organizations, in case of any losses through bad loans.

It is pointed out that the plan will be successful only to the extent that societies and individual cooperators are willing to deposit some part of their surplus in the fund. In this connection it is of interest to note a report that Consumers' Cooperative Services, one of the largest members of the league, at its annual meeting gave unanimous approval to the plan. It backed this up by empowering its board of directors to deposit up to $5,000 in the fund and by obtaining, from a number of the individual cooperators present, subscriptions of $10 each.

Profit Sharing and Copartnership in Great Britain in 1931

AN ACCOUNT of the various types of profit-sharing and copartnership schemes in Great Britain in 1931 is given in the June, 1932, issue of the Ministry of Labor Gazette.

The total number of establishments known to have profit-sharing schemes in operation at the end of 1931 was 485. These had 493 schemes in operation, in which 233,000 (49 per cent) of the 477,000 employees participated. Bonuses in the amount of £10 0s. 10d. per person were distributed by 419 schemes.

Of the schemes in operation at the end of the year, 169 were those of cooperative societies and 324 those of other enterprises.

Schemes in Cooperative Societies

THE 169 cooperative societies with profit-sharing plans employ nearly 36,000 persons, approximately 34,000 of whom participated in the schemes.

Table 1 shows the bonuses paid in 1931 and preceding years.

In the case of the agricultural societies the bonuses consist of a fixed proportion of the net profits, paid in cash.

Most of the industrial productive societies provide that a specified proportion of the profits shall be set aside for bonuses. In a number of cases the rate varies with the rate of dividend paid to customers on their purchases. Ten plans provide that the bonus must be invested in shares of the society, and 25 others that this must be done until the sum so invested reaches a specified amount. In four cases some part of the bonus must be invested in shares, and in three cases all or part of the bonus goes for provident or welfare purposes. In only eight cases is the bonus paid in cash. Of the 50 productive societies, 49 are workers' productive associations—5 in the textile industry, 15 in the shoe industry, 3 manufacturing other clothing, 16 printing establishments, and 10 in other industries—and 1 society is a bakery society (employing 2,000 workers) owned by a federation of consumers' cooperative societies.

In the case of the distributive societies the bonus is paid at the same rate as is paid to the customers on purchases. In some cases a bonus of varying rate is paid out of such profits as are left after specified fixed charges have been met; in such cases that part of the bonus which amounts really to a deferred commission on sales was

excluded and only that part included "which is regulated by the amount of profits."

TABLE 1.—RESULTS OF PROFIT-SHARING PLANS OF COOPERATIVE SOCIETIES IN GREAT BRITAIN, 1925 TO 1931

[Conversions into United States currency on basis of pound=$4.8665]

Type of society and year	Number of plans in operation	Number of employees participating	Bonuses reported		
			Number of plans	Amount paid	
				Average per employee	Average addition to earnings
1931:					*Per cent*
Agricultural societies	66	800	[1] 66	$12.61	2.3
Industrial productive societies	50	10,500	[2] 50	28.53	5.3
Retail distributive societies	53	22,700	52	26.97	4.5
Total, 1931	169	34,000	168	27.13	4.7
1930	172	33,000	170	27.96	4.6
1929	176	30,800	165	26.83	4.4
1928	178	29,500	164	26.46	4.6
1927	177	26,500	157	23.54	4.2
1926	176	25,500	158	23.33	4.0
1925	175	24,200	157	22.56	3.8

[1] 21 of these societies reported but paid no bonus.
[2] 19 of these societies reported but paid no bonus.

Schemes of Other Enterprises

IN ENTERPRISES other than cooperative societies, 651 schemes are known to have been started, of which only 324 were still in operation at the end of 1931.

The report points out that profit sharing has been tried in a wide variety of industries. In nearly every industry, however, the number of schemes known to have been started is very small in comparison with the total number of firms engaged in the industry, and in all industries taken together about one-half of the schemes started have come to an end. The most conspicuous exception is the gas industry, in which a large proportion of the principal company-owned undertakings have introduced profit-sharing plans; comparatively few of these have been discontinued, and a number have been in operation for 20 years or more.

The small proportion of the total force which is covered by the profit-sharing plans is due partly to the fact that participation in the plan often depends upon certain factors, such as length of service. In a considerable number of cases, to be eligible to the plan the employees must be depositors in the company's savings or employee stock-purchase departments.

Table 2 shows the extent and operation of these company profit-sharing plans in 1931 and certain preceding years.

TABLE 2.—RESULTS OF PROFIT-SHARING PLANS OF INDUSTRIAL ENTERPRISES IN GREAT BRITAIN, 1910 TO 1931

[Conversions into United States currency on basis of pound=$4.8665]

Industry	Firms with plans in operation		Number of employees		Bonuses reported			
							Amount paid	
	Total	Number of plans	Total	Entitled to participate [1]	Number	Employees participating	Average per employee	Average addition to earnings
1931:								*Per cent*
Agriculture	6	6	700	200	5	200	$2.09	0.4
Glass, chemical, soap, oil, paint, etc.	16	16	61,400	22,000	13	14,000	66.51	8.9
Metal, engineering, and shipbuilding	44	47	72,500	19,400	29	14,300	17.48	2.9
Textile	27	27	41,200	18,700	23	12,700	6.43	1.0
Food and drink manufacture	29	31	40,500	27,900	27	27,500	27.58	3.7
Paper, printing, publishing, bookbinding, etc.	29	30	16,400	8,600	22	6,100	31.92	4.1
Gas, water, electricity supply	71	71	55,900	47,900	66	46,700	47.35	5.1
Insurance, banking, and other financial	12	12	44,500	12,800	8	14,600	213.88	12.6
Trade, warehousing, etc.	39	40	30,700	22,700	28	8,500	71.15	9.1
Other	43	44	77,500	18,900	30	16,800	28.12	3.3
Total, 1931	316	324	441,300	199,100	251	161,400	53.43	5.4
1930	321	329	(2)	205,000	[3] 255	175,500	52.07	5.9
1920	(2)	270	(2)	136,000	158	(2)	48.24	6.4
1910	(2)	123	(2)	57,000	76	(2)	(2)	5.0

[1] Approximate. [2] No data. [3] 4 of these paid no bonus.

Of the 324 schemes, the bonus in 68 cases (with 34,200 participants) consisted in the issuance of shares of the company's stock either free or on terms especially favorable as to price or dividend; 28 (with 11,800 participants) were "deposit schemes" allowing interest, at rates varying with the profits, on deposits made by the employees; in 125 plans (with 74,300 participating employees) the bonus was paid in cash or credited to the employees' savings account; in 13 plans (with 7,700 participants) the bonus was put into a provident, retirement, etc., fund; in 34 plans (with 24,000 participants) the bonus was paid in shares or invested in shares of the company; and in 56 plans (with 47,100 participants) it was paid in other ways.

The total amount paid or credited in bonuses under the various schemes in 1931 was $8,624,411; the corresponding figure for 1930 was $9,136,367.

Organization of Cooperative Societies in Mexico

LEGAL authorization for the formation of cooperative associations was one of the points included in the agrarian program resulting from the revolutionary changes of 1913, and the cooperative movement of Mexico may be said to date from about 1920. An account of the development of cooperation in that country is given in the April, 1932, Monthly Bulletin of Agricultural Economics and Sociology (Rome).

The so-called agricultural credit law of March 2, 1929, contained certain provisions relating to the financing of cooperative organizations. The advantages of the law, however, were limited to the

members of the agrarian communities known as "ejidos" and made no provision for the great mass of small farmers.

In order to remedy this situation a new general cooperative law was passed February 10, 1927, and another on January 21, 1931. These laws authorize the formation, by agriculturists of Mexican nationality, of agricultural cooperative societies of unlimited liability, undertaking one or more of such activities as production, labor, insurance, building, transportation, joint sale, joint purchase, and the provision of credit.

If the society is formed by small farmers, 10 persons are necessary for incorporation; if by members of an ejido, a majority of the members is required.

Credit for financing the society may be obtained from the regional agricultural bank, but only for purposes approved by the bank. These usually include such purposes as purchase of seeds, animals, implements, etc.; land drainage or improvement projects; establishment of warehouses or factories, or of general stores, etc.

The functions permitted under the law allow the societies to perform services of nearly every kind for their members. Among the principal functions contemplated by the law is "the encouragement of the economic organization and of the moral and social progress of the members, as well as the raising of the standard of living in the rural household."

The administrative machinery of these societies, as provided in the law, is peculiar in that, besides the management committee, there is a committee of supervision representing "the minority party in the society" and consisting of three members elected by the minority at the time of nomination of the management committee. The duty of the committee of supervision is "to see that the society observes its commitments, that its operations are in accordance with the provisions of the law and with the rules of the society; that the funds are properly invested; in short, its function is to see that the society is properly managed."

Although every society has a manager, the final authority with regard to the funds and securities of the organization and its credit operations is vested in the district treasurer appointed by the National Bank of Agricultural Credit.

The law provides that 25 per cent of any profits of the society shall be placed in a provident fund and another 25 per cent in a reserve fund. The remainder of the profits must be deposited in the Department of Peasant Savings, which will credit to each member the share due him in proportion to his business with the society.

It is reported that the cooperative movement has prospered when credit has been obtainable under the law, but "when the attempt has been to rely on internal resources only, success has not followed except within very narrow limits."

It is, however, noticeable that in the present situation of Mexico as affected by the world economic crisis the farmer is impelled to seek refuge in cooperation, the proof of this being the rapid increase in the number of requests from the different regions for official instructions in respect of cooperative organization.

Some 125 societies have been organized, a large proportion of which are in the Provinces of Puebla (24) and Vera Cruz (33). Most of these are agricultural production societies, but a few carry on joint purchase or sale activities or are credit organizations. There is one cooperative labor society.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in July, 1932

DATA regarding industrial disputes in the United States for July, 1932, with comparable data for preceding months, are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, 1930, and 1931, the number of workers involved and man-days lost for these years and for each of the months January, 1930, to July, 1932, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost as given in the last column of the table refers to the estimated number of working-days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1930, TO JULY, 1932, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS, 1927 TO 1931

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
Total:					
1927	734	----------	349,434	----------	37,799,394
1928	629	----------	357,145	----------	31,556,947
1929	903	----------	230,463	----------	9,975,213
1930	653	----------	158,114	----------	2,730,368
1931	894	----------	279,299	----------	6,386,183
1930					
January	45	21	9,240	5,316	184,730
February	52	40	37,480	6,683	438,570
March	49	38	15,017	5,957	291,127
April	64	41	6,379	5,840	189,828
May	66	29	9,329	4,386	185,448
June	59	34	14,011	8,311	144,117
July	78	30	14,308	4,815	141,647
August	51	33	15,902	7,131	142,738
September	72	44	16,337	13,778	208,184
October	47	36	10,858	16,007	335,916
November	44	29	4,390	7,759	273,608
December	26	7	4,863	5,144	194,455
1931					
January	57	19	10,150	2,905	181,169
February	52	29	20,473	10,677	223,660
March	49	26	26,453	28,012	476,904
April	73	39	27,135	22,687	770,512
May	115	46	28,000	15,603	400,509
June	90	47	18,795	15,223	511,926
July	73	51	49,434	56,683	612,864
August	79	36	11,019	14,759	1,157,013
September	117	65	36,092	37,427	493,649
October	77	45	34,384	29,380	1,052,095
November	63	39	13,219	13,690	355,818
December	50	21	4,145	1,318	150,064

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1930, TO JULY, 1932, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS, 1927 TO 1931—Continued

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1932					
January	79	37	11,105	4,648	117,298
February	50	30	31,140	28,691	417,966
March	51	28	31,966	11,660	685,949
April	73	34	17,707	20,066	572,121
May	79	43	43,403	49,232	1,220,202
June [1]	55	40	13,344	21,603	927,602
July [1]	46	49	10,289	28,784	630,083

[1] Preliminary figures subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in May, June, and July, 1932, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN MAY, JUNE, AND JULY, 1932

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	May	June	July	May	June	July
Bakers	12		2	1,129		29
Barbers	1	3	1	2,000	850	600
Brewery and soft drink workers	1			10		
Broom and brush workers			1			17
Building trades	18	11	11	31,055	928	719
Chauffeurs and teamsters	6	4	1	398	404	70
Clerks, salesmen		1			30	
Clothing	11	6	10	4,433	348	587
Farm labor	3	1		800	15	
Fire fighters and policemen			1			10
Food workers	1	1		20	60	
Furniture	2	1	1	50	15	300
Hotel and restaurant workers			1			70
Iron and steel	1		1	300		150
Light, heat, power, and water	1			100		
Longshoremen and freight handlers		1			40	
Lumber, timber, and mill work		1			9	
Metal trades	2	1		223	200	
Miners	3	3	2	705	5,300	550
Motion-picture operators, actors, and theatrical workers	3	1	2	33	7	30
Paper and paper-goods workers	2	3		743	783	
Printing and publishing		1	1		19	42
Shipbuilding	1			300		
Stone		1			25	
Municipal workers		2	1		3,000	35
Textiles	3	7	6	88	783	6,870
Other occupations	8	6	4	1,016	528	210
Total	79	55	46	43,403	13,344	10,289

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in July, 1932, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JULY, 1932, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial group	Number of disputes beginning in July, 1932, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	5,000 and under 10,000 workers
Bakers	1	1			
Barbers				1	
Broom and brush workers	1				
Building trades	6	4		1	
Chauffeurs and teamsters		1			
Clothing		7	3		
Fire fighters and policemen	1				
Furniture			1		
Hotel and restaurant workers		1			
Iron and steel			1		
Miners		1		1	
Motion-picture operators, actors, and theatrical workers	1	1			
Printing and publishing		1			
Municipal workers		1			
Textiles		3	1	1	1
Other occupations		3	1		
Total	10	24	7	4	1

In Table 4 are shown the number of industrial disputes ending in July, 1932, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JULY, 1932, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in July, 1932				
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 and less than 3 months	3 and less than 4 months
Bakers	1				1
Broom and brush workers	1				
Building trades	4	3	1	1	
Chauffeurs and teamsters	1				
Clerks, salesmen		1			
Clothing	4		1	1	
Hotel and restaurant workers	1				
Miners	2		1	1	
Motion-picture operators, actors, and theatrical workers	1		1		
Paper and paper-goods workers			1		
Printing and publishing		1			
Municipal workers	1				
Textiles	2	1			
Other occupations	4				
Total	22	6	5	3	1

Conciliation Work of the Department of Labor in July, 1932

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 70 labor disputes during July, 1932. These disputes affected a known total of 82,558 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 19 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

On August 1, 1932, there were 26 strikes before the department for settlement and, in addition, 26 controversies which had not reached the strike stage. The total number of cases pending was 56.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF JULY, 1932

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1932	1932		
Poli Theaters, Massachusetts and Connecticut.	Controversy	Theater workers	Wages and conditions	Adjusted. Accepted wage cut and agreement concluded.	July 5	July 14	92	502
Brier Hill Stone Co., Glenmont, Ohio.	Strike	Stonecutters	Wages and union agreement	Pending	Mar. 1		75	
Cigar makers, Cincinnati, Ohio	Controversy	Cigar makers	Wage scale reduced	Adjusted. Arbitration accepted. Reduced scale maintained.	July 6	July 9	225	
M. & C. Cloak & Dress Co., the Bronx, New York City.	Strike	Garment makers	Reinstatement of discharged presser.	Adjusted. Man reinstated as asked.	June 23	July 1	30	9
Fulton Mattress Co., Brooklyn, N. Y.	do	Mattress workers	One discharged; asked recognition	Adjusted. Discharged man was not reemployed. Others returned.	June 18	July 5	10	2
Dee & Eff Sportwear, New York City.	do	Knitters	Proposed 20 to 25 per cent cut in piecework.	Adjusted. Accepted cut of 12 to 15 per cent on some piecework and 5 to 10 on other items.	June 1	do	30	5
Luddecke Express Co., Newark, N. J.	do	Drivers	Two discharged	Adjusted. Drivers reinstated	July 6	July 7	42	
Franklin Shoe Co., Brooklyn, N. Y.	do	Shoe workers	Proposed wage cut	Pending	June 15		40	
Blind workers, Wilkes-Barre, Pa.	Controversy	Blind workers	do	Adjusted. Accepted cut to $15 per week.	June 23	July 21	7	15
Howard Clothes (Inc.), Brooklyn, N. Y.	Strike	Clothing makers	Alleged violation of agreement in sending work to outside shops.	Adjusted. Compromise agreement. All returned.	June 1	July 7	600	
Eagle Clothes (Inc.), New York City.	do	do	Wages. Discontinuance of inside shops.	do	do	July 8	300	
Shell Oil Refinery, Wood River, Ill.	Threatened strike.	Boilermakers	Wages cut 10 per cent	Adjusted. Boilermakers cut to 80 cents, helpers to 62 cents per hour.	July 12	July 13	10	1,018
Mayfair Cravats (Inc.), New York City.	Strike	Neckwear workers	Asked reemployment of 3 discharged workers.	Pending	June 20		40	
Blatz Brewing Co., Milwaukee, Wis.	Threatened strike.	Machinists	Additional 10 cents per hour cut	Adjusted. Accepted cut; additional union men employed.	July 11	July 26	10	
School building, McKeesport, Pa.	Controversy	Laborers	Wage dispute and nonunion conditions.	Adjusted. Satisfactorily settled	July 14	July 16	8	20
Printers, San Bernardino, Calif.	Lockout	Printers	Wages cut by reducing number of working hours.	Pending	do		45	
Painters, Greater New York	Strike	Painters	Wages cut from $13 to $10 per day; new agreement.	do	July 10		5,000	5,000
[illegible]	do	Hosiery workers	Wage cut 33 per cent in addition	Adjusted. Cut of 33 per cent re-	July 18	July 28	2,700	1,800

Hosiery mills, High Point, N. C.	do	Hosiery workers	Wage cut 33 per cent in addition to former cuts.	Adjusted. Cut of 33 per cent restored; 4 per cent increase to boarders.	July 18	July 28	2,700	1,800
N. & G. Taylor Tin Co., Cumberland, Md.	do	Tin workers	Asked written agreement	Pending	June 28		175	250
Ladies' garment workers, New York City.	Threatened strike.	Garment workers	Wages and working conditions	Adjusted. Strike averted by compromise; accepted 10 per cent cut.	July 19	July 23	27,000	------
Moos Fur Dyeing, New York City	Strike	Fur workers	Proposed cuts	Adjusted. Increase of $2 per week, shorter hours, and company to make arrangements for unemployment insurance.	July 17	July 19	60	------
J. Friedman & Co. (Inc.), New York City.	do	Cutters and operators.	Violation of union agreement	Adjusted. Work resumed	July 16	do	650	------
Ted Lewis Clothing (Inc.), New York City.	do	Clothing workers	Wage dispute	Adjusted. Returned and work resumed.	July 11	July 18	25	------
B. Axel & Co., New York City	do	Fur workers	Wages and working conditions	Adjusted. Increase of 5 to 10 per cent on certain styles.	July 1	do	12	16
Phillips Oil Co., East St. Louis, Ill.	do	Employees	Alleged violation of agreement	Pending	July 21		30	------
Five Star Shoe Co. (Inc.), Long Island City, N. Y.	do	Shoe workers	Wages and recognition	do	July 29		52	56
Shell Oil Co., Oakland, Calif.	Controversy	Teamsters	Right to organize	do	July 6		16	65
Matson Navigation & Steamship Co., San Francisco, Calif.	do	Machinists	Wage cut 10 per cent as of July 1	Adjusted. Accepted 10 per cent cut.	July 1	July 19	20	126
Building crafts, Pittsburgh, Pa.	Strike	Building workers	Union or nonunion men	Pending	July 21		250	1,500
House Office Building, Washington, D. C.	Controversy	Painters	Dispute relative painters' strike in New York City.	do	July 18		60	------
Oil-tank construction, Bayonne, N. J.	do	Boilermakers	Asked "4-men gang instead of 3".	do	July 23		30	4
Shell Oil Co., California	Discussion	All employees	Annual conferences to fix wage scales and terms of employment.	do	July 1		2,200	30,000
Federal aid road, Lockport, Ill.	Strike	Laborers, engineers, and chauffeurs.	Working conditions	Adjusted. Union sent men back to work.	July 15	July 29	40	------
Commercial and Financial Chronicle, New York City.	do	Printers	Wage rates, overtime, and holidays.	Adjusted. Satisfactory agreement.	July 9	July 28	45	26
Government construction work								
Post-office building, Nanticoke, Pa.	Controversy	Building crafts	Prevailing-wage discussion	Pending	June 28		35	------
Immigration station, San Ysidro, Calif.	do	Bricklayers	do	do	June 23		10	60
Marine hospital, Seattle, Wash.	do	Painters and decorators.	Asked rotation of men	Adjusted. Granted as asked with exception of 4 "key-men."	June 15	June 28	20	------
Post-office building, Chattanooga, Tenn.	do	Building workers	Alleged skilled mechanics employed at common-labor rates.	Adjusted. Laborers allowed 22½ cents, carpenters 80 to 90 cents per hour.	July 1	July 7	155	------
Post-office building, Knoxville, Tenn.	do	Laborers	do	Adjusted. Allowed 22½ cents per hour.	July 2	do	50	50
Post-office building, Macon, Ga.	do	Building workers	Alleged laborers not being paid prevailing wage.	Adjusted. Wages for crafts fixed and will be paid.	June 27	July 20	35	15

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF JULY, 1932—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Government construction work—Con.								
Post-office building, Lynchburg, Va.	Controversy	Building workers	Prevailing-wage discussion	Pending	1932 June 29	1932	(1)	(1)
Post-office building, Cumberland, Md.	do	do	do	Adjusted. Prevailing wage fixed and will be paid.	June 11	June 22	100	
Post-office building, Miami, Fla	do	Plumbers	do	Pending	July 1		(1)	
Post-office building, Westminster, Md.	do	Building workers	do	do	June 28		(1)	
Post-office building, Lawrence, Mass.	do	Laborers	Prevailing wages	do	June 17		45	213
Quarantine station, Miami, Fla	do	Building workers	do	do	July 3		10	30
Marine hospital, Seattle, Wash	do	Carpenters and iron-workers.	Jurisdiction of bronze-door work	Adjusted. Work awarded to iron-workers.	July 15	July 24	20	50
Post-office building, Kenosha, Wis.	do	Building workers	Prevailing-wage discussion	Pending	July 12		(1)	
Post-office building, Pittsburgh, Pa.	Strike	Operating engineers	Material from nonunion firms being used.	do	July 16		19	
Soldiers' Home, Chelsea, Mass	do	Plasterers	Jurisdiction of certain work	Adjusted. Compromised	July 13	July 13	11	
Post-office building, Niagara Falls, N. Y.	Controversy	Bricklayers and carpenters.	Prevailing-wage discussion	Adjusted. Compromised. Prevailing wage to be paid to bricklayers; carpenters allowed $1 per hour.	July 18	July 27	30	20
Naval warehouse, Mare Island, Calif.	do	Building workers	do	Pending	July 1		14	31
Post-office building, Baton Rouge, La.	do	do	do	do	July 17		120	
Post-office building, Ludington, Mich.	do	Bricklayers	do	Adjusted. Bricklayers allowed $1.25 per hour.	July 7	July 20	10	8
Marine hospital, Detroit, Mich	do	Carpenters and pile drivers.	Wage-rate adjustment	Pending	July 1		155	
Federal building, Sioux City, Iowa.	do	Building workers	Prevailing-wage discussion	Adjusted. Allowed 40 cents per hour on excavation work; 45 cents on all other common labor.	July 21	July 26	60	175
Post-office building, Middleboro, Mass.	do	Carpenters	Paid 40 cents per hour; alleged 85 cents prevailing rate.	Pending	July 18		14	76
Post-office building, Glens Falls, N. Y.	do	Bricklayers and carpenters.	Protest employment of nonresidents of city.	Adjusted. All local men employed except 4 or 5.	July 1	July 14	18	5
Veterans' hospital, Fort Snelling, Minn.	Strike	Building laborers	Prevailing-wage rate	Adjusted. Allowed 65 cents per hour.	June 3	do	14	36
		Carpenters	Overtime work	Adjusted. Satisfactorily settled	June 24	July 5	14	50

Post-office building, Topeka, Kans.	---do---	Carpenters	Overtime work	Adjusted. Satisfactorily settled	June 24	July 5	14	50
Post-office building, Topeka, Kans.	Controversy	Electricians	Status of helpers	---do---	---do---	July 14	7	50
Post-office building, Topeka, Kans.	---do---	Bricklayers	Rotation of work	Adjusted. Rotation allowed	---do---	July 2	6	65
Veterans' hospital, Sawtelle, Calif.	---do---	Cement finishers	Prevailing wage	Adjusted. Agreed on $10 per day.	July 2	July 21	10	------
Post-office building, Quincy, Mass.	---do---	Building laborers	Prevailing-wage discussion	Pending	July 23	----------	(1)	------
Post-office building, Hartford, Conn.	Strike	Bricklayers	Alleged discrimination against local labor.	---do---	July 26	----------	20	------
Post-office building, Hamilton, Ohio.	Controversy	Electricians	Prevailing-wage discussion	Adjusted. General contractor withdrew; satisfactory settlement.	July 22	July 29	2	50
Veterans' hospital, Sawtelle, Calif.	---do---	Plasterers	---do---	Adjusted. Scale fixed at $9 per day.	July 20	Aug. 2	16	16
Post-office building, Miami, Fla.	---do---	Laborers	Paid at rate of 20 cents per hour	Adjusted. Allowed 30 cents per hour.	July 28	Aug. 1	40	25
Marine hospital, Evansville, Ind.	---do---	Bricklayers	Local labor	Adjusted. Local men to be employed.	July 15	July 30	20	50
Post-office building, Lafayette, Ind.	---do---	Painters	---do---	Adjusted. Outside men and local workers equally employed.	July 19	---do---	10	50
Total							41,019	41,539

[1] Not reported.

Labor Disputes in Philippine Islands, 1926 to 1930

STATISTICS on strikes and other industrial disputes in the Philippines in 1926 to 1930, taken from the 1930 report of the Governor General, are given in the accompanying table.

INDUSTRIAL DISPUTES IN THE PHILIPPINES, 1926 TO 1930

Year	Number of disputes	Number of workers involved	Cause of dispute		Dispute settled in favor of—	
			Wages	Other	Workers	Employers
1926	27	7,279	18	9	16	11
1927	53	8,567	33	20	39	14
1928	38	4,729	21	17	21	17
1929	26	4,939	13	13	10	16
1930	36	6,069	22	14	11	25
Total	180	31,583	107	73	97	83

Abolition of Compulsory Arbitration in New Zealand

ON APRIL 8, 1932, New Zealand passed an act amending the industrial conciliation and arbitration act of 1925 in such a manner as to do away with practically all the compulsory features of arbitration in industrial disputes. The argument against the compulsory plan was that it had, in the opinion of the Government, become an obstacle in the way of national recovery by reason of the rigid fixing of wages, hours, and other industrial conditions. The only important respect in which compulsion is retained is that any organization of female workers is entitled to approach the arbitration court for an award fixing the basic wage in its industry. The arbitration court is retained, but submission of a dispute to it must be voluntary, after the failure of conciliation. An explanation of the plan embodied in the new act is given in the July 25, 1932, issue of Industrial and Labor Information (Geneva).

Under the old legislation an industrial dispute had to be submitted to councils of conciliation, composed of assessors chosen by each side, and if these failed to reach an agreement, the question automatically went to the arbitration court for settlement. Under the new law, the councils of conciliation are retained, but a difference is made in the number of assessors allowable, the maximum being four for each side in a dispute involving only one industrial district, and seven for each side in a dispute extending over two or more districts. If, in a given dispute, the council is able to reach an agreement, its terms are at once filed as an agreement. For a month thereafter, however, any employer, trade-union, industrial union, or industrial association bound by the agreement may apply to the arbitration court for partial or total exemption, and the court in its discretion may grant or refuse the plea.

If the council of conciliation is not successful in reaching an agreement the dispute may go on to the court only if the following conditions are complied with:

1. In the case of a dispute confined to one district:

(*a*) Where there are four assessors on each side, at least three of the assessors on each side must vote in favor of a proposal to refer the dispute to the court.

(b) Where there are less than four assessors on each side, all the assessors must vote to refer the dispute to the court.

2. In the case of a dispute extending over two or more districts:

(a) Where there are six or seven assessors on each side, five assessors on each side must vote to refer the dispute to the court.

(b) Where there are less than six assessors on each side all the assessors must vote to refer the dispute to the court.

If the required majority—or unanimity as the case may be—is secured, the case goes to the court. If not, opportunity is afforded for further consideration provided a majority of the council thinks some good may result. The council of conciliation may decide by a majority vote to adjourn the proceedings for a period of 14 days. On its reassembling the procedure is the same as at the original sitting.

If there is no majority in favor of adjournment, or if after adjournment the necessary majority to refer the dispute to the court is not obtained, the clerk of awards is notified accordingly, and on the expiration of one month from the date of such notification every award or industrial agreement theretofore binding on the parties to the dispute in connection with the industry to which the dispute relates shall be deemed to be canceled.

Provision is made in the new act to prevent any deliberate delay in bringing a dispute before a council of conciliation, and the operation of the act itself is not confined to new disputes.

Any cases before the arbitration court at the time of its passing must be referred back to the commissioner to be dealt with by the conciliation council in accordance with the new act. Notwithstanding any provision in an existing award, either of the parties may make application for its review, provided the award has been in force for not less than six months and has at the time of the application an unexpired term of not less than three months.

Among other provsions of interest is one dealing with piecework. In many of the existing awards payment of workers at piece rates is prohibited. The new law provides that hereafter payment by piece rates may be established, and also declares void and of no effect any provision in an existing award restricting or prohibiting such payments. It contains, however, a stipulation that if a worker is employed at piece rates he must receive not less remuneration for any period than he would be entitled to if his remuneration were computed at the time rate. "All agreements in regard to piecework must be made in writing, signed by the parties, and a copy must be lodged with the local inspector of awards."

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LABOR AGREEMENTS, AWARDS AND DECISIONS

Agreement to Stabilize Employment for Printing Pressmen in Concord, N. H.

THE Concord Printing Pressmen and Assistants' Union No. 276 and the Rumford Printing Co. recently entered into an agreement supplemental to their existing contract, the provisions of which are in part as follows:

1. The Rumford Printing Co. be permitted a rebate on all wages earned by pressroom workers to the amount of 10 per cent of the existing scale of wages.
2. *Provided, however,* That said pressroom workers have worked in excess of three full days or three full nights per week. All overtime, after three full working days or nights shall be subject to 10 per cent rebate, provided that such overtime exceeds two hours.
3. In the event that only three full days or nights or less have been worked, no rebate will be permitted.

In consideration of this rebate the Rumford Printing Co. agrees to maintain, as far as possible, the present working force of pressroom workers.

Awards and Decisions

Photo-Engravers—New York City

A REDUCTION of 12 per cent in the wages of photo-engravers employed by the Publishers' Association of New York City was awarded on June 30, 1932, by a board of arbitration which had considered the demand of the publishers for a 20 per cent reduction.

The board was composed of Judge Peter J. Schmuck, of the State supreme court; Judge John Clark Knox, of the Federal district court; and George J. Ryan, president of the board of education.

Pointing out that the cost of living has declined from 12 to 15 per cent during the past year, the board determined upon a 12 per cent reduction in the wage scale and therefore ordered that "for the coming year" night workers should receive $70 a week and the day workers $62.50.

Men's Clothing Industry—Philadelphia

FAILURE of negotiations between the Amalgamated Clothing Workers of America and manufacturers having contracts with the union, relative to a change in wage levels in Philadelphia, led to the question being submitted to arbitration.

A hearing was held by the impartial chairman on June 18, 1932. It was argued on behalf of the manufacturers that reductions had been made in the fall of 1931 and in 1932 in the Chicago and Rochester markets exceeding the reductions allowed in Philadelphia during that

period, and that unless some equalization was made the Philadelphia market would not be able to compete with other cities. It was also contended that because of the reduction in the cost of living a smaller wage to-day was equivalent to a much larger one a year or two years ago. It was argued that the manufacturers would be driven out of business and the industry in Philadelphia destroyed unless a reduction was allowed; if a reduction was allowed more business would be secured for the Philadelphia market and enough more work would be given the employees to compensate for the reduction in rate.

The employees contended that the wage rate had been higher in Chicago and Rochester than in Philadelphia, and therefore an exact comparison could not be made in regard to recent reductions of wages as between Philadelphia and other cities. It was further contended that there had been a marked falling off in the price of materials, and that the cost of labor on a garment was only a fractional item in the general cost of production. Because of the falling off in production the actual earnings of the employees were so much less than two years ago that this factor more than offset the present increased purchasing power of the dollar.

The arbitrator summed up the situation in the following terms:

All of the arguments presented by the two sides and the facts upon which they are based have been given due consideration. On the whole, however, present conditions are so abnormal that circumstances which otherwise might be of great or even controlling importance must give way to the practical necessities of the situation. To use a trite phrase, it is a condition that confronts us and not a theory. The chairman is fully cognizant of the sacrifices which labor has been called upon to make during the present period of depression, and nothing but urgent considerations would in his opinion justify adding thereto. On the other hand, the chairman is impressed by the fact—as to which he has satisfied himself—that the industry in Philadelphia can not survive unless it maintains a proper parity as to wage levels with other cities with which it is obliged to compete, and furthermore that the losses faced in the industry are such that it could not long endure unless the relief asked for is granted to some substantial degree. It is hoped that if times get somewhat better, or at least no worse, such relief will bring sufficiently more business to the Philadelphia market that the greater production will enable the employees to maintain their present amounts of earnings notwithstanding wage reductions.

The arbitrator realizes that there are some employees who by reason of their present small earnings should not be obliged to bear the full brunt of a reduction, and that therefore some kind of provision should be made for such cases, and also that special provision should be made for those in the cutting rooms who have not been receiving the full or standard wages established for such occupation.

His decision was as follows:

Effective on June 27, 1932, and thereafter for a period of one year unless sooner changed by agreement between the parties or by the impartial chairman in pursuance of arbitration proceedings brought by either party, the wages of members of Amalgamated Clothing Workers of America employed by the said five concerns shall be, and the same hereby are, reduced 10 per cent:

Provided, however, That an allowance equal to 3 cents per suit (consisting of coat, vest, and pants, or of coat and vest only) and 3 cents per overcoat, produced by each of said concerns, shall be made by the said concerns, the said allowance to be applied to additional wages in such sections and in such proportions within the sections as Amalgamated Clothing Workers of America may determine; and

Provided further, That no reduction shall be made in the cutting rooms which will result in wages of less than $30 per week being paid to individual workmen in such rooms, nor shall any reduction be made in said cutting rooms in the case of any workman now receiving less than $30 per week.

Collective Agreements in France in 1931

AN ANALYSIS of the collective labor agreements reported to the French Labor Bureau in 1931 is given in the Bulletin du Ministère du Travail for January–March, 1932 (pp. 52, 53). The agreements, of which there were 17, were divided among the different industries as follows: Food, 6; polygraphic industries, 1; metal works and mechanical construction, 3; stonecutting, 1; textiles and clothing, 4; transportation and warehousing, 2.

The information furnished the labor office in regard to the circumstances giving rise to the agreements was incomplete, but in four cases it was stated the agreements were concluded as the result of a strike. The intervention of a third party was required in four cases, in 3 cases the intervention of labor inspectors being required and in one instance that of a prefect.

Eleven of the agreements were between trade-unions and employers' associations, 5 between union workers and employers or groups of employers not belonging to an association, and one required the mediation of a mixed commission. The majority of the agreements were to be effective for an unlimited time, with a provision fixing the length of time required for notice of withdrawal of either party. Six of the agreements, however, were to have a limited duration, ranging from 6 to 10 months.

In five cases the agreements specified the method of application of the 8-hour day; 10 established a minimum wage; 4, amount of traveling expenses; 3, piecework rates and production bonuses; 3, notification of dismissal; 2, bonuses for dangerous and unhealthful work; 7, overtime rates; and 1 each, regulation of vacations and leave, organization of weekly rest, recognition of workers' representatives, and apprenticeship.

One agreement fixed the amount of the cost-of-living bonus in relation to the cost-of-living reports of a mixed commission, and 3 agreements established joint commissions for the settlement of future differences.

HOUSING

Building Permits in Principal Cities of the United States, July, 1932

THERE was a decrease of 30.5 per cent in indicated expenditures for total building operations in July, 1932, as compared with June, 1932, according to reports received from 351 identical cities by the Bureau of Labor Statistics. Indicated expenditures for total building operations in July, 1932, were $35,247,658.

Estimated expenditures for new residential building decreased 29.0 per cent. Estimated cost of new nonresidential building decreased 34.6 per cent, and for repairs the decrease was 19.7 per cent.

During July, 1932, 1,944 family dwelling units were provided for in new buildings. This is a decrease of 22.3 per cent as compared with June, 1932.

The cost figures as shown in the following tables apply to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Illinois, Massachusetts, New York, New Jersey, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Comparisons, June and July

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JUNE AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	June, 1932	July, 1932	Per cent of change	June, 1932	July, 1932	Per cent of change
New England	$1,048,605	$894,607	−14.7	$2,408,634	$3,703,687	+53.8
Middle Atlantic	3,129,415	1,701,723	−45.6	8,987,748	5,587,939	−37.8
East North Central	1,315,795	1,000,874	−23.9	2,758,284	2,549,543	−7.6
West North Central	817,445	570,880	−30.2	2,225,574	2,844,736	+27.8
South Atlantic	1,192,427	882,886	−26.0	11,024,460	3,013,338	−72.7
South Central	436,234	517,573	+18.6	1,218,027	1,310,407	+7.6
Mountain and Pacific	1,612,410	1,216,540	−24.6	2,149,170	1,128,914	−47.5
Total	9,552,331	6,785,083	−29.0	30,771,897	20,138,564	−34.6

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JUNE AND JULY, 1932, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	June, 1932	July, 1932	Per cent of change	June, 1932	July, 1932	Per cent of change	
New England	$1,116,990	$1,132,429	+1.4	$4,574,229	$5,730,723	+25.3	54
Middle Atlantic	3,607,984	2,334,876	−35.3	15,725,147	9,624,538	−38.8	68
East North Central	1,510,943	1,509,253	−0.1	5,585,022	5,059,670	−9.4	94
West North Central	782,911	683,518	−12.7	3,825,930	4,099,134	+7.1	25
South Atlantic	1,385,054	1,105,551	−20.2	13,601,941	5,001,775	−63.2	40
South Central	591,416	420,931	−28.8	2,245,677	2,248,911	+0.1	32
Mountain and Pacific	1,371,609	1,137,453	−17.1	5,133,189	3,482,907	−32.1	38
Total	10,366,907	8,324,011	−19.7	50,691,135	35,247,658	−30.5	351

Indicated expenditures for residential buildings decreased 29.0 per cent, comparing July permits with June permits. Decreases were shown in this class of building in six of the seven geographic divisions. In the South Central States there was an increase in indicated expenditures for new residential buildings.

Four of the seven geographic divisions showed decreases in the estimated costs of new nonresidential buildings. The decreases ranged from 7.6 per cent in the East North Central States to 72.7 per cent in the South Atlantic States. Increases were shown in the other three geographic divisions. The largest increase, 53.8 per cent, was registered in the New England States.

The New England, the West North Central, and the South Central States all showed increases in expenditures for total building operations.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations, in 351 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JUNE AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932
New England	216	176	709	491	2,210	1,999	3,135	2,666
Middle Atlantic	388	324	1,447	1,195	4,943	4,530	6,778	6,049
East North Central	256	219	1,451	1,196	2,865	2,339	4,572	3,754
West North Central	209	186	679	568	1,064	945	1,952	1,699
South Atlantic	263	220	562	439	2,812	2,320	3,637	2,979
South Central	203	201	410	311	1,403	1,299	2,016	1,811
Mountain and Pacific	456	379	1,059	832	3,194	2,890	4,709	4,101
Total	1,991,	1,705	6,317	5,032	18,491	16,322	26,799	23,059
Per cent of change		−14.4		−20.3		−11.7		−14.0

Comparing permits issued in July with those issued in June, there was a decrease of 14.0 per cent in the number of permits issued for all classes of building construction. Decreases were also shown in the number of new residential building, of new nonresidential building, and of additions, alterations, and repairs.

Table 3 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings, for which permits were issued in 351 identical cities, during June and July, 1932, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 351 IDENTICAL CITIES IN JUNE AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932
New England	$847,105	$790,607	188	162	$156,500	$90,000	46	25
Middle Atlantic	1,407,603	1,268,764	315	278	396,512	256,459	104	70
East North Central	1,161,595	837,384	239	206	130,200	62,490	30	15
West North Central	782,195	552,080	203	183	25,750	18,800	10	6
South Atlantic	1,057,727	833,436	246	209	2,000	19,000	3	11
South Central	403,184	417,711	193	176	24,585	78,712	15	37
Mountain and Pacific	1,281,960	952,690	426	343	100,950	144,650	40	55
Total	6,941,369	5,652,672	1,810	1,557	836,497	670,111	248	219
Per cent of change		−18.6		−14.0		−19.9		−11.7

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932	June, 1932	July, 1932
New England	$45,000	$14,000	19	4	$1,048,605	$894,607	253	191
Middle Atlantic	1,325,300	176,500	261	53	3,129,415	1,701,723	680	401
East North Central	24,000	101,000	3	42	1,315,795	1,000,874	272	263
West North Central	9,500	0	4	0	817,445	570,880	217	189
South Atlantic	128,000	30,450	63	13	1,187,727	882,886	312	233
South Central	8,465	21,150	6	25	436,234	517,573	214	238
Mountain and Pacific	199,500	59,200	88	31	1,582,410	1,156,540	554	429
Total	1,739,765	402,300	444	168	9,517,631	6,725,083	2,502	1,944
Per cent of change		−76.9		−62.2		−29.3		−22.3

Permits issued in July, 1932, showed decreases in expenditures for all classes of housekeeping dwellings and decreases in the number of families provided in each class of housekeeping dwelling.

The South Central was the only geographic division in which more family dwelling units were provided in new buildings during July than during June.

Table 4 shows the index number of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations.

TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
1930					
July	49.9	44.1	86.7	77.4	64.8
1931					
July	35.8	27.6	53.7	57.8	41.7
1932					
January	14.4	10.2	25.0	25.8	18.2
February	13.0	9.1	16.5	26.7	14.3
March	15.4	10.7	18.1	27.0	15.7
April	13.4	9.7	25.0	32.0	18.8
May	11.3	7.9	39.3	27.3	23.3
June	10.6	7.9	24.6	28.2	17.3
July	8.2	5.6	16.1	22.6	12.0

The index numbers of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations were all lower during July, 1932, than during either June, 1932, or July, 1931.

Comparisons of Indicated Expenditures for Public Buildings

TABLE 5 shows the value of contracts awarded for public buildings by the different agencies of the United States Government and by the various State governments during the months of July, 1931, and June and July, 1932.

TABLE 5.—VALUE OF CONTRACTS FOR PUBLIC BUILDINGS LET BY THE UNITED STATES GOVERNMENT AND BY STATE GOVERNMENTS, JULY, 1931, AND JUNE AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	July, 1931		June, 1932 [1]		July, 1932 [1]	
	Federal	State	Federal	State	Federal	State
New England	$337,228	$3,598,023	$685,114	$703,926	$760,460	$797,071
Middle Atlantic	659,826	4,542,542	4,113,617	536,687	1,054,946	1,071,507
East North Central	569,083	167,011	1,112,653	363,105	633,138	276,981
West North Central	254,238	484,900	1,779,413	107,773	2,671,151	331,764
South Atlantic	2,128,246	177,661	10,212,342	261,211	2,488,728	278,811
South Central	3,242,303	1,854,684	250,632	232,977	1,048,442	866,655
Mountain and Pacific	1,984,100	341,372	1,365,477	555,013	1,176,269	73,510
Total	9,175,024	11,166,193	19,519,248	2,760,692	9,833,134	3,696,299

[1] Subject to revision.

Contracts were awarded during July, 1932, by the various agencies of the Federal Government for buildings to cost $9,833,134. This is less than the value of contracts awarded for Federal buildings during June, but slightly greater than for indicated expenditures for Federal buildings during July, 1931.

The value of contracts awarded for State buildings during July, 1932, was $3,696,299. This was more than 30 per cent greater than indicated expenditures for State buildings during June, but much less than the value of contracts awarded during July, 1931.

Comparisons, July, 1932, with July, 1931

TABLE 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 341 identical cities of the United States having a population of 25,000 or over, for the months of July, 1931, and July, 1932, by geographic divisions.

TABLE 6.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 341 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JULY, 1931, AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	July, 1931	July, 1932	Per cent of change	July, 1931	July, 1932	Per cent of change
New England	$3,644,085	$797,507	−78.1	$7,977,913	$3,692,997	−53.7
Middle Atlantic	13,342,355	1,683,423	−87.4	21,901,198	5,433,208	−75.2
East North Central	4,923,839	999,374	−79.7	6,157,847	2,548,953	−58.6
West North Central	2,032,320	570,880	−71.9	2,476,433	2,844,736	+14.9
South Atlantic	2,845,762	875,969	−69.2	6,276,208	3,013,338	−52.0
South Central	2,253,816	517,573	−77.0	5,167,125	1,307,657	−74.7
Mountain and Pacific	5,133,083	1,204,370	−76.5	6,664,437	1,117,644	−83.2
Total	34,175,260	6,649,096	−80.5	56,621,161	19,958,533	−64.8

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	July, 1931	July, 1932	Per cent of change	July, 1931	July, 1932	Per cent of change	
New England	$2,810,731	$1,107,139	−60.6	$14,432,729	$5,597,643	−61.2	51
Middle Atlantic	7,572,477	2,301,223	−69.6	42,816,030	9,417,854	−78.0	66
East North Central	2,896,701	1,508,943	−47.9	13,978,387	5,057,270	−63.8	93
West North Central	1,180,909	683,518	−42.1	5,689,662	4,099,134	−28.0	25
South Atlantic	1,891,568	1,100,806	−41.8	11,013,538	4,990,113	−54.7	39
South Central	871,498	420,911	−51.7	8,292,439	2,246,141	−72.9	31
Mountain and Pacific	2,410,225	1,121,463	−53.5	14,207,745	3,443,477	−75.8	36
Total	19,634,109	8,244,003	−58.0	110,430,530	34,851,632	−68.4	341

Indicated expenditures for new residential building decreased 80.5 per cent, comparing July, 1932, permits with those issued in July, 1931. There was a decrease of 64.8 per cent in the estimated cost of new nonresidential buildings; a decrease of 58.0 per cent in the estimated cost of additions, alterations, and repairs; and a decrease of 68.4 per cent in the estimated cost of total building operations, comparing July, 1932, with the same month of the previous year.

Table 7 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 341 identical cities having a population of 25,000 or over, for July, 1932, and July, 1931, by geographic divisions.

TABLE 7.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 341 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JULY, 1931, AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932
New England	472	161	980	475	2,444	1,971	3,896	2,607
Middle Atlantic	1,273	320	2,211	1,180	4,915	4,500	8,399	6,000
East North Central	826	218	2,230	1,191	3,734	2,335	6,790	3,744
West North Central	453	186	956	568	1,274	945	2,683	1,699
South Atlantic	466	218	773	439	2,755	2,298	3,994	2,955
South Central	576	201	546	306	1,708	1,298	2,830	1,805
Mountain and Pacific	1,103	369	1,483	810	3,823	2,856	6,409	4,035
Total	5,169	1,673	9,179	4,969	20,653	16,203	35,001	22,845
Per cent of change		−67.6		−45.9		−21.5		−34.7

Decreases were shown in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in each geographic division, comparing permits issued in July, 1932, with those issued in July, 1931.

Table 8 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the cost of such dwellings, for which permits were issued in 341 identical cities during July, 1931, and July, 1932, by geographic divisions.

TABLE 8.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 341 IDENTICAL CITIES IN JULY, 1931, AND JULY, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932
New England	$2,655,285	$693,507	408	147	$413,800	$90,000	103	25
Middle Atlantic	5,960,672	1,250,464	992	274	1,618,683	256,459	419	70
East North Central	3,995,489	835,884	750	205	492,300	62,490	118	15
West North Central	1,826,120	552,080	419	183	148,200	18,800	57	6
South Atlantic	1,992,662	826,519	404	207	55,700	19,000	22	11
South Central	1,769,933	417,711	516	176	226,683	78,712	88	37
Mountain and Pacific	3,919,963	940,520	999	333	361,050	144,650	124	55
Total	22,120,124	5,516,685	4,488	1,525	3,316,416	670,111	931	219
Per cent of change		−75.1		−66.0		−79.8		−76.5

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932	July, 1931	July, 1932
New England	$307,000	$14,000	101	4	$3,376,085	$797,507	612	176
Middle Atlantic	5,278,000	176,500	1,481	53	12,857,355	1,683,423	2,892	397
East North Central	276,050	101,000	58	42	4,763,839	999,374	926	262
West North Central	53,000	0	32	0	2,027,320	570,880	508	189
South Atlantic	797,400	30,450	282	13	2,845,762	875,969	708	231
South Central	172,200	21,150	77	25	2,168,816	517,573	681	238
Mountain and Pacific	686,450	59,200	363	31	4,967,463	1,144,370	1,486	419
Total	7,570,100	402,300	2,394	168	33,006,640	6,589,096	7,813	1,912
Per cent of change		−94.7		−93.0		−80.0		−75.5

Decreases were shown in the estimated cost and in the number of family dwelling units provided in each of the different classes of housekeeping dwellings, comparing permits issued in July, 1932, with those issued in July, 1931.

Details by Cities

TABLE 9 shows the number and estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, together with the number of family dwelling units provided in new buildings, for each of the 351 cities from which reports were received for July, 1932.

No reports were received from Bangor, Me.; Clifton and Irvington, N. J.; Chester and Reading, Pa.; Anderson, Ind.; Newark, Ohio; University City, Mo.; Pensacola, Fla.; Ashland, Louisville, and Newport, Ky.; Baton Rouge, La.; Muskogee and Okmulgee, Okla.; Galveston and Laredo, Tex.; and Everett, Wash.

Permits were issued for the following important building projects during the month of July, 1932: In New Haven for a dormitory at Yale University to cost $900,000; in Boston for a pathological building at the City Hospital to cost $650,000, and for a high school for girls to cost $920,000; in Buffalo for an armory to cost nearly $900,000; in the Borough of the Bronx for a school building to cost $602,000; in Rochester for an office building to cost $400,000; in Union City, N. J., for a store building to cost $300,000; in Milwaukee for a school building to cost $1,000,000.

Contracts were awarded by the Supervising Architect of the United States Treasury Department for a post-office building in Bridgeport, Conn., to cost $465,000; for a post office in Minneapolis to cost nearly $2,300,000; and for a central heating plant for public buildings in Washington, D. C., to cost over $1,000,000.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY, 1932

New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Connecticut:				Massachusetts—Continued.			
Bridgeport	$19,300	$471,250	$509,514	Brookline	$38,500	$650	$81,500
Bristol	3,000	420	5,001	Cambridge	5,500	154,360	217,100
Greenwich	56,500	45,650	117,950	Chelsea	0	0	15,210
Hartford	14,882	885	101,292	Chicopee	3,500	7,350	12,650
Meriden	4,500	2,375	12,890	Everett	3,500	0	5,900
New Britain	18,000	2,990	28,630	Fall River	0	7,837	26,637
New Haven	43,700	915,355	979,710	Fitchburg	0	4,560	8,320
Norwalk	62,650	5,480	72,785	Haverhill	5,500	1,250	14,055
Stamford	37,000	2,325	54,265	Holyoke	10,500	3,300	16,050
Torrington	3,000	3,000	8,725	Lawrence	0	5,150	15,625
Waterbury	3,900	18,075	34,125	Lowell	2,000	2,200	9,470
West Hartford	41,500	2,065	53,265	Lynn	7,000	7,920	33,285
Maine:				Malden	7,500	1,050	13,095
Lewiston	6,250	500	6,750	Medford	32,200	650	44,650
Portland	24,675	7,410	39,470	New Bedford	4,200	5,675	19,350
Massachusetts:				Newton	20,000	17,225	54,050
Arlington	20,600	7,175	42,365	Pittsfield	78,500	9,200	102,900
Beverly	7,300	10,425	20,950	Quincy	25,200	6,740	44,592
Boston [1]	40,500	1,662,200	2,109,599	Revere	4,000	2,300	12,760
Brockton	10,500	10,475	42,275				

[1] Applications filed.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY, 1932—Continued

New England States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Massachusetts—Continued.			
Salem	$13,000	$194,150	$229,910
Somerville	0	0	13,105
Springfield	18,350	7,250	41,375
Taunton	4,400	725	10,354
Waltham	15,000	1,710	19,248
Watertown	5,000	3,350	11,275
Worcester	38,100	2,600	62,875
New Hampshire:			
Concord	3,000	2,700	5,700
Manchester	15,500	1,760	27,976
Rhode Island:			
Central Falls	0	$50	$1,700
Cranston	$25,500	2,375	31,010
East Providence	5,300	24,350	34,440
Newport	11,200	2,050	25,070
Pawtucket	0	6,180	7,150
Providence	34,500	45,925	175,770
Woonsocket	5,460	1,590	9,555
Vermont:			
Burlington	35,000	1,450	37,450
Total	894,607	3,703,687	5,730,723

Middle Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
New Jersey:			
Atlantic City	0	$1,150	$19,114
Bayonne	$9,000	11,950	30,964
Belleville	8,500	11,555	22,155
Bloomfield	5,000	4,200	12,700
Camden	5,000	0	10,693
East Orange	0	225	11,715
Elizabeth	8,000	7,000	15,000
Garfield	7,300	55,375	64,150
Hackensack	3,600	151,866	171,951
Hoboken	0	13,500	27,700
Jersey City	49,000	19,324	88,374
Kearny	10,000	65,100	75,880
Montclair	71,000	3,655	81,428
Newark	22,500	48,050	99,500
New Brunswick	0	800	9,475
Orange	0	300	14,881
Passaic	16,300	37,125	72,461
Paterson	14,766	7,300	53,166
Perth Amboy	0	500	6,363
Plainfield	4,750	2,972	14,989
Trenton	10,000	9,274	39,282
Union City	0	300,000	315,088
West New York	0	0	650
West Orange	14,700	2,865	34,733
New York:			
Albany	47,700	73,100	137,528
Amsterdam	11,500	4,925	16,825
Auburn	5,500	3,475	11,910
Binghamton	12,900	3,146	41,766
Buffalo	41,000	1,800,520	1,916,905
Elmira	10,000	16,057	49,763
Jamestown	3,000	1,575	7,584
Kingston	6,500	2,225	15,414
Lockport	0	0	0
Mt. Vernon	12,000	26,750	52,210
Newburgh	0	1,950	5,300
New Rochelle	12,500	9,600	31,645
New York City—			
The Bronx[1]	139,130	675,850	1,091,305
Brooklyn[1]	319,150	650,435	1,193,871
New York—Con.			
New York City—Con.			
Manhattan[1]	0	$33,720	$543,930
Queens[1]	$233,900	174,126	605,794
Richmond[1]	54,820	80,405	150,998
Niagara Falls	15,400	2,215	45,266
Poughkeepsie	19,650	850	26,080
Rochester	27,100	470,855	543,431
Schenectady	5,500	5,615	16,814
Syracuse	22,200	52,085	141,523
Troy	4,000	64,400	73,860
Utica	4,000	3,700	12,950
Watertown	2,101	1,775	32,598
White Plains	112,500	70,800	186,150
Yonkers	106,200	53,375	180,475
Pennsylvania:			
Allentown	4,900	22,400	50,500
Altoona	0	2,711	7,445
Bethlehem	2,500	675	5,625
Butler	0	250	2,465
Easton	7,300	9,811	18,297
Erie	6,800	8,585	37,843
Harrisburg	4,500	43,725	84,515
Hazleton	22,653	5,807	56,176
Johnstown	0	13,225	15,325
Lancaster	0	6,650	9,150
McKeesport	0	85,953	91,208
Nanticoke	3,000	0	5,050
New Castle	4,500	36,405	41,535
Norristown	0	3,150	6,586
Philadelphia	45,800	257,535	457,280
Pittsburgh	59,800	33,345	189,140
Scranton	20,800	9,595	50,144
Wilkes-Barre	3,000	5,680	14,402
Wilkinsburg	0	1,900	4,000
Williamsport	0	322	6,871
York	28,500	2,600	37,674
Total	1,701,723	5,587,939	9,624,538

East North Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Illinois:			
Alton	$3,000	$1,950	$10,521
Aurora	2,500	2,225	12,520
Belleville	13,500	950	14,575
Berwyn	0	2,200	7,800
Bloomington	15,000	89,000	104,000
Chicago	71,900	195,491	461,119
Cicero	0	1,385	3,070
Illinois—Contd.			
Danville	$2,247	0	$4,747
Decatur	11,500	$575	13,250
East St. Louis	0	7,200	14,350
Elgin	0	3,775	16,159
Evanston	16,000	3,000	51,500
Granite City	0	200	200
Joliet	3,000	200	24,696

[1] Applications filed.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY, 1932—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Illinois—Contd.			
Maywood	$3,000	$1,050	$4,050
Moline	8,900	315	12,138
Oak Park	0	0	2,300
Peoria	6,700	4,475	15,950
Quincy	0	2,560	7,340
Rockford	0	2,500	11,590
Rock Island	3,500	525	27,809
Springfield	15,300	3,904	29,544
Waukegan	2,000	143,450	151,075
Indiana:			
East Chicago	0	0	2,825
Elkhart	1,500	1,700	4,749
Evansville	0	13,348	20,509
Fort Wayne	8,300	4,620	18,179
Gary	0	5,575	5,575
Hammond	2,000	3,843	10,020
Indianapolis	10,100	27,085	72,851
Kokomo	0	2,500	3,080
Lafayette	0	0	0
Marion	2,475	50	3,705
Michigan City	0	4,050	5,110
Mishawaka	0	300	550
Muncie	0	1,220	9,298
Richmond	10,500	0	12,500
South Bend	0	9,300	19,380
Terre Haute	5,800	2,760	12,050
Michigan:			
Ann Arbor	1,500	26,710	42,224
Battle Creek	0	4,845	6,568
Bay City	2,400	1,075	16,727
Dearborn	7,100	850	78,550
Detroit	69,440	53,670	340,078
Flint	6,500	6,354	22,777
Grand Rapids	7,500	9,575	25,630
Hamtramck	0	1,525	3,805
Highland Park	0	2,000	4,353
Jackson	0	1,442	3,910
Kalamazoo	17,000	1,345	34,717
Lansing	0	2,465	7,430
Muskegon	0	3,125	37,525
Pontiac	2,000	5,370	12,120
Port Huron	0	400	1,100
Royal Oak	1,500	590	2,400
Saginaw	12,600	2,130	20,155
Wyandotte	2,500	2,675	5,375
Ohio:			
Akron	$36,600	$12,971	$61,216
Ashtabula	0	2,455	3,205
Canton	1,200	490	5,040
Cincinnati	156,650	191,785	410,445
Cleveland	82,100	120,425	360,800
Cleveland Heights	27,500	1,475	42,025
Columbus	12,000	164,250	331,500
Dayton	650	21,004	27,707
East Cleveland	0	3,835	6,720
Elyria	0	360	960
Hamilton	0	1,093	4,403
Lakewood	81,000	11,250	94,970
Lima	0	200	735
Lorain	2,000	530	3,410
Mansfield	12,800	130,170	144,295
Marion	4,200	1,015	6,005
Massillon	1,000	125	1,400
Middletown	0	750	1,837
Norwood	0	135	1,585
Portsmouth	0	0	0
Springfield	0	1,750	3,170
Steubenville	0	3,025	3,275
Toledo	17,500	13,988	59,948
Warren	0	2,850	24,005
Youngstown	0	2,360	12,570
Wisconsin:			
Appleton	32,100	1,625	42,400
Eau Claire	9,962	1,000	15,362
Fond du Lac	5,000	1,850	6,940
Green Bay	8,550	5,630	22,705
Kenosha	0	1,000	5,390
Madison	53,300	14,683	84,078
Milwaukee	80,100	1,136,692	1,321,294
Oshkosh	13,000	345	17,045
Racine	0	20,665	22,655
Sheboygan	9,000	5,585	29,401
Superior	0	2,420	4,636
West Allis	5,900	330	10,380
Total	1,000,874	2,549,543	5,059,670

West North Central States

Iowa:			
Burlington	0	$2,000	$2,250
Cedar Rapids	$9,675	10,354	28,342
Council Bluffs	4,810	1,625	15,614
Davenport	10,900	2,085	24,400
Des Moines	63,600	46,709	131,299
Dubuque	6,650	3,200	13,543
Ottumwa	4,000	2,150	10,800
Sioux City	9,000	29,600	44,925
Waterloo	5,000	975	11,495
Kansas:			
Hutchinson	0	4,150	5,045
Kansas City	1,050	16,850	21,975
Topeka	8,800	2,830	18,620
Wichita	7,750	17,515	43,589
Minnesota:			
Duluth	3,500	4,640	39,053
Minneapolis	92,860	2,349,800	2,675,485
St. Paul	86,160	35,094	207,893
Missouri:			
Joplin	0	$550	$4,500
Kansas City	$27,500	26,000	112,700
Springfield	5,350	1,150	10,790
St. Joseph	8,500	570	10,270
St. Louis	145,100	237,029	498,237
Nebraska:			
Lincoln	19,500	2,760	26,660
Omaha	35,900	40,375	110,575
North Dakota:			
Fargo	5,900	1,100	14,949
South Dakota:			
Sioux Falls	9,375	5,625	16,125
Total	570,880	2,844,736	4,099,134

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY, 1932—Continued

South Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Delaware:			
Wilmington	$10,000	$3,940	$101,503
District of Columbia:			
Washington	306,900	2,579,678	3,064,626
Florida:			
Jacksonville	31,550	12,960	94,699
Miami	16,575	20,710	82,208
Orlando	6,500	0	15,760
St. Petersburg	8,500	2,100	26,000
Tampa	5,600	3,740	27,827
West Palm Beach	6,917	0	11,662
Georgia:			
Atlanta	42,800	9,333	103,640
Augusta	13,550	16,055	34,356
Columbus	2,500	1,120	11,510
Macon	2,000	850	5,609
Savannah	0	1,150	19,368
Maryland:			
Baltimore	208,000	194,000	856,969
Cumberland	3,500	100	8,710
Hagerstown	1,650	2,475	4,635
North Carolina:			
Asheville	0	1,485	7,970
Charlotte	0	820	4,605
Durham	26,450	4,000	41,050
Greensboro	2,900	396	9,694
High Point	$3,150	$1,500	$5,800
Raleigh	2,294	3,225	8,169
Wilmington	2,700	200	5,950
Winston-Salem	4,000	2,490	11,250
South Carolina:			
Charleston	3,000	20,222	30,617
Columbia	22,750	2,500	30,600
Greenville	5,000	185	12,575
Spartanburg	0	0	1,177
Virginia:			
Lynchburg	18,750	92,180	115,675
Newport News	2,800	638	9,925
Norfolk	85,000	5,225	101,200
Petersburg	0	50	6,292
Portsmouth	0	150	5,290
Richmond	19,750	22,730	77,198
Roanoke	3,500	1,941	7,821
West Virginia:			
Charlestown	3,800	1,600	14,281
Clarksburg	0	225	5,240
Huntington	0	1,360	2,890
Parkersburg	2,000	1,180	4,330
Wheeling	8,500	825	13,094
Total	882,886	3,013,338	5,001,775

South Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Alabama:			
Birmingham	0	$4,035	$22,638
Mobile	$8,975	1,500	15,385
Montgomery	16,200	1,885	29,410
Arkansas:			
Little Rock	2,150	806	11,516
Kentucky:			
Covington	6,000	1,975	11,885
Lexington	2,000	1,575	13,894
Paducah	3,500	4,600	9,000
Louisiana:			
Monroe	11,500	0	14,800
New Orleans	61,391	92,125	204,995
Shreveport	2,950	710	17,457
Mississippi:			
Jackson	3,468	0	11,778
Oklahoma:			
Enid	0	5,200	7,900
Oklahoma City	30,000	694,600	733,197
Tulsa	1,700	15,485	23,095
Tennessee:			
Chattanooga	$1,500	0	$18,625
Johnson City	4,000	$150	4,150
Knoxville	43,440	9,408	52,848
Memphis	19,500	39,000	115,700
Nashville	18,550	5,030	52,529
Texas:			
Amarillo	6,480	1,400	9,052
Austin	45,034	23,460	99,154
Beaumont	0	2,115	9,361
Brownsville	0	2,750	2,770
Dallas	63,350	94,825	192,528
El Paso	2,850	4,928	18,991
Fort Worth	22,000	122,350	169,395
Houston	77,265	22,878	114,018
Port Arthur	0	549	4,876
San Angelo	0	0	3,840
San Antonio	45,070	152,865	224,716
Waco	6,200	4,125	11,955
Wichita Falls	12,500	78	17,453
Total	517,573	1,310,407	2,248,911

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY, 1932—Continued

Mountain and Pacific States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)
Arizona:			
Phoenix	0	$778	$10,501
Tucson	$2,400	3,610	13,427
California:			
Alameda	6,595	2,852	15,121
Alhambra	13,500	4,375	27,300
Bakersfield	7,600	300	16,160
Berkeley	21,500	2,560	42,146
Fresno	2,900	13,980	16,880
Glendale	17,500	270,665	293,450
Huntington Park	2,550	5,950	11,370
Long Beach	64,050	76,545	178,755
Los Angeles	428,270	306,390	1,011,811
Oakland	64,050	14,639	128,409
Pasadena	25,360	5,600	81,441
Riverside	0	910	14,449
Sacramento	35,150	7,735	63,001
San Bernardino	14,150	25	16,125
San Diego	39,400	18,530	101,581
San Francisco	207,150	224,722	602,472
San Jose	2,000	57,750	74,600
Santa Ana	4,875	0	12,410
Santa Barbara	9,620	5,320	28,060
Santa Monica	32,600	1,925	62,205
Stockton	$700	$3,335	$8,935
Vallejo	6,600	655	10,845
Colorado:			
Colorado Springs	2,000	822	10,522
Denver	91,500	28,550	161,515
Pueblo	0	2,145	4,172
Montana:			
Butte	0	50	985
Great Falls	0	665	6,095
New Mexico:			
Albuquerque	11,000	6,200	29,523
Oregon:			
Portland	48,000	23,595	232,335
Salem	15,445	4,650	27,832
Utah:			
Ogden	3,500	670	7,170
Salt Lake City	3,250	8,060	21,350
Washington:			
Bellingham	900	0	2,710
Seattle	18,625	9,080	81,613
Spokane	6,800	11,801	28,191
Tacoma	7,000	3,475	27,440
Total	1,216,540	1,128,914	3,482,907

Building Permits in Principal Cities, First Half of 1932, by Types of Buildings

AN ARTICLE in the August issue of the Labor Review gave a general summary, by cities, of building expenditures and families provided for in the first half of 1932. The present article gives for the same 6-month period details for all cities combined by types of building. It is to be remembered that the figures here cited refer to the cost of the buildings only and do not include land costs.

Table 1 shows the total number of new buildings and the estimated cost of the different kinds of new buildings for which permits were issued in the 94 cities from which reports were received for the first six months of 1932, the per cent that each kind forms of the total number, the per cent that the cost of each kind forms of the total cost, and the average cost per building.

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 94 CITIES, JANUARY 1 TO JUNE 30, 1932, BY KIND OF BUILDING

Kind of building	Buildings for which permits were issued				
	Number	Per cent	Estimated cost		
			Amount	Per cent	Average per building
Residential buildings:					
1-family dwellings	9,024	26.4	$36,964,472	18.6	$4,096
2-family dwellings	874	2.6	5,586,511	2.8	6,392
1-family and 2-family dwellings with stores	106	.3	776,588	.4	7,326
Multifamily dwellings	253	.7	10,351,211	5.2	40,914
Multifamily dwellings with stores	13		237,500	.1	18,269
Hotels	0	.0	0	.0	0
Lodging houses	2	(1)	3,000	(1)	1,500
All other	8	(1)	1,076,525	.5	134,566
Total residential buildings	10,280	30.0	54,995,807	27.6	5,350
Nonresidential buildings:					
Amusement buildings	167	.5	9,178,192	4.6	54,959
Churches	89	.3	4,836,440	2.4	54,342
Factories and workshops	344	1.0	7,791,765	3.9	22,650
Public garages	149	.4	1,416,570	.7	9,507
Private garages	15,547	45.4	4,302,359	2.2	277
Service stations	1,157	3.4	2,458,532	1.2	2,125
Institutions	32	.1	6,622,485	3.3	206,953
Office buildings	67	.2	6,033,096	3.0	90,046
Public buildings	83	.2	56,616,440	28.5	682,126
Public works and utilities	128	.4	10,722,416	5.4	83,769
Schools and libraries	92	.3	21,241,660	10.7	230,888
Sheds	3,299	9.6	872,186	.4	264
Stables and barns	96	.3	66,757	(1)	695
Stores and warehouses	1,989	5.8	11,145,926	5.6	5,604
All other	700	2.0	645,066	.3	922
Total nonresidential buildings	23,939	70.0	143,949,890	72.4	6,013
Grand total, new buildings	34,219	100.0	198,945,697	100.0	5,814

[1] Less than one-tenth of 1 per cent.

Permits were issued during the first half of 1932, in these 94 cities, for 34,219 new buildings, to cost $198,945,697. Of the total number of buildings, 30 per cent were residential buildings and 70 per cent were nonresidential buildings. Of the residential buildings, nearly 90 per cent were 1-family dwellings. Of the nonresidential buildings, private garages were by far the most numerous; sheds, and stores and warehouses follow in the order named.

Only 27.6 per cent of the indicated expenditures for all new buildings in this period was for residential buildings, and 72.4 per cent was for nonresidential buildings. More money was spent for 1-family dwellings than for any other class of residential buildings. More than three times as much was spent for 1-family dwellings as for apartment houses. Of the nonresidential group, public buildings accounted for the largest expenditure, 28.5 per cent, of all indicated expenditures for new buildings in the first half of 1932 in these 94 cities. Schools and libraries (which are largely erected from public funds) accounted for 10.7 per cent of all expenditures.

The average cost of all new buildings for which permits were issued in the first half of 1932 was $5,814. The average cost of all residential buildings was $5,350, the range of average cost being from $1,500 in the case of lodging houses to $134,566 in the case of "All other residential buildings." The group "All other residential" includes such buildings as dormitories, Y. M. C. A., and Y. W. C. A., and other association buildings.

The average cost of nonresidential buildings is $6,013. If, however, the cost of private garages, sheds, and stables and barns is excluded, the average cost of the remaining nonresidential buildings is $27,758. The average cost of the public buildings for which contracts were awarded during this period was $682,126; schools and libraries averaged over $230,000 and institutional buildings over $206,000. No other class of nonresidential building averaged as much as $100,000.

Building Trend, First Half of 1931 and of 1932

TABLE 2 shows the number and cost of the different kinds of buildings for which permits were issued in 94 identical cities in the first half of 1932, as compared with the first half of 1931.

TABLE 2.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 94 CITIES, FIRST HALF OF 1931 AND OF 1932, BY KIND OF BUILDING

Kind of building	New buildings for which permits were issued during first half of—				Per cent of change, 1932, as compared with 1931	
	1931		1932			
	Number	Cost	Number	Cost	Number	Cost
Residential buildings:						
1-family dwellings	23,175	112,202,366	9,024	36,964,472	−61.1	−67.1
2-family dwellings	2,886	20,357,973	874	5,586,511	−69.7	−72.6
1-family and 2-family dwellings with stores	203	1,734,624	106	776,588	−47.8	−55.2
Multifamily dwellings	1,208	84,322,020	253	10,351,211	−79.1	−87.7
Multifamily dwellings with stores	49	6,289,500	13	237,500	−73.5	−96.2
Hotels	8	871,000	0	0	−100.0	−100.0
Lodging houses	5	185,000	2	3,000	−60.0	−98.4
All other	34	3,250,900	8	1,076,525	−76.5	−66.9
Total residential buildings	27,568	229,213,383	10,280	54,995,807	−62.7	−76.0
Nonresidential buildings:						
Amusement buildings	208	12,397,057	167	9,178,192	−19.7	−26.0
Churches	187	8,176,026	89	4,836,440	−52.4	−40.8
Factories and workshops	613	29,721,355	344	7,791,765	−43.9	−73.8
Public garages	440	6,444,602	149	1,416,570	−66.1	−78.0
Private garages	29,575	9,752,247	15,547	4,302,359	−47.4	−55.9
Service stations	1,483	4,041,307	1,157	2,458,532	−22.0	−39.2
Institutions	83	17,400,936	32	6,622,485	−61.4	−61.9
Office buildings	131	80,333,975	67	6,033,096	−48.9	−92.5
Public buildings	159	42,251,082	83	56,616,440	−47.8	+34.0
Public works and utilities	149	15,369,163	128	10,722,416	−14.1	−30.2
Schools and libraries	211	44,979,789	92	21,241,660	−56.4	−52.8
Sheds	3,146	1,018,678	3,299	872,186	+4.9	−14.4
Stables and barns	41	104,460	96	66,757	+134.1	−36.1
Stores and warehouses	2,757	30,690,946	1,989	11,145,926	−27.9	−63.7
All other	831	1,220,858	700	645,066	−15.8	−47.2
Total, nonresidential buildings	40,014	303,902,481	23,939	143,949,890	−40.2	−52.6
Total new buildings	67,582	533,115,864	34,219	198,945,697	−49.4	−62.7
Additions, alterations, and repairs	85,110	89,348,956	71,542	46,521,706	−15.9	−47.9
Grand total, all building	152,692	622,464,820	105,761	245,467,403	−30.7	−60.6

During the first half of 1932 there was an estimated expenditure of $245,467,403 for building operations of all kinds. This is 60.6 per cent less than the estimated cost of buildings for which permits were issued during the first half of 1931 in the 94 cities from which reports were received. The number of building operations, however, fell off only 30.7 per cent.

Comparing permits issued in the first half of 1932 with those issued in the first half of 1931, there was a decrease of 62.7 per cent in the

number and a decrease of 76 per cent in the cost of new residential buildings, and a decrease of 40.2 per cent in the number and a decrease of 52.6 per cent in the cost of new nonresidential buildings. New buildings, as a whole, decreased 49.4 per cent in the number and 62.7 per cent in the estimated cost. Additions, alterations, and repairs decreased 15.9 per cent in number and 47.9 per cent in indicated expenditures comparing the two periods under discussion.

All classes of residential buildings showed decreases in both number and cost. No permits were issued for hotel buildings during the first half of 1932, while during the first half of 1931 permits were issued for eight hotels to cost nearly $900,000.

In the nonresidential group, sheds and stables and barns were the only classes of buildings showing increases in number. The decreases in number of nonresidential buildings ranged from 14.1 per cent in the case of public works and utilities to 66.1 per cent in the case of public garages.

The estimated expenditures for public buildings increased 34 per cent. Expenditures for all other types of nonresidential buildings showed a decrease, the lowest decrease, 14.4 per cent, being for sheds, and the highest decrease, 92.5 per cent, for office buildings. Expenditures during the first half of 1932 for factory buildings, public garages, private garages, institutional buildings, office buildings, schools and libraries, and stores and warehouses were all less than one-half the expenditures for the same class of buildings during the first half of 1931.

Families Provided For First Half of 1931 and of 1932

TABLE 3 shows the number and per cent of families provided for by each of the different kinds of dwellings for which permits were issued in 94 identical cities during the first half of 1931 and the first half of 1932.

TABLE 3.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN NEW DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 94 IDENTICAL CITIES, FIRST HALF OF 1931 AND OF 1932, BY KIND OF DWELLING

Kind of dwelling	Number of dwellings for which permits were issued		Families provided for			
			Number		Per cent	
	First half 1931	First half 1932	First half 1931	First half 1932	First half 1931	First half 1932
1-family dwellings	23,175	9,024	23,175	9,024	43.1	63.4
2-family dwellings	2,886	874	5,772	1,748	10.7	12.3
1-family and 2-family dwellings with stores	203	106	309	157	.6	1.1
Multifamily dwellings	1,208	253	23,132	3,245	43.0	22.8
Multifamily dwellings with stores	49	13	1,399	55	2.6	.4
Total	27,521	10,270	53,787	14,229	100.0	100.0

During the first half of 1932 permits were issued for 10,270 new dwellings, to provide for 14,229 families. Of the families provided for, 63.4 per cent were to be housed in 1-family dwellings and only 23.2 per cent in apartment houses. This represented a great increase over 1931 in the case of the 1-family dwellings, but a considerable decrease in the case of the apartment houses.

Table 4 shows the number and percentage distribution of families provided for in the different kinds of dwellings in the 65 identical

cities from which reports were received for the first six months of each year, 1922 to 1932. For convenience, 1-family and 2-family dwellings with stores are grouped with 2-family dwellings, and multifamily dwellings with stores are grouped with multifamily dwellings.

TABLE 4.—NUMBER AND PER CENT OF FAMILIES PROVIDED FOR IN 10 SPECIFIED KINDS OF DWELLINGS IN 65 IDENTICAL CITIES, FIRST HALF OF EACH YEAR, 1922 TO 1932

Period	Number of families provided for in—				Per cent of families provided for in—		
	1-family dwellings	2-family dwellings [1]	Multifamily dwellings [2]	All classes of dwellings	1-family dwellings	2-family dwellings [1]	Multifamily dwellings [2]
First half of—							
1922	63,892	32,321	51,006	147,249	43.4	22.0	34.6
1923	77,875	39,314	77,826	195,015	39.9	20.2	39.9
1924	82,514	50,904	69,619	203,037	40.6	25.1	34.3
1925	87,783	39,320	80,291	207,394	42.3	19.0	38.7
1926	71,818	26,727	100,201	198,746	36.1	13.4	50.4
1927	57,899	24,204	95,448	177,551	32.6	13.6	53.8
1928	50,724	19,261	111,268	181,252	28.0	10.6	61.2
1929	36,237	12,815	81,205	130,257	27.8	9.8	62.3
1930	20,410	6,101	19,930	46,441	43.9	13.1	42.9
1931	20,334	5,268	23,870	49,472	41.1	10.6	48.2
1932	7,884	1,732	3,203	12,819	61.5	13.5	25.0

[1] Includes 1-family and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

In these 65 cities, 12,819 family dwelling units were provided for in new buildings during the first half of 1932. This is but slightly more than one-fourth as many as were provided for during the first half of 1931 and only a little over 6 per cent of the number provided in the first half of 1925, the peak building year. During the first half of 1932, 61.5 per cent of the dwelling units provided were in 1-family dwellings—the first time since 1922 that single-family dwellings have supplied more than one-half of the dwelling accommodations. During the first half of 1929, only 27.8 per cent of the family dwelling units for which permits were issued were in 1-family dwellings.

Building Operations, 1922 to 1932

TABLE 5 shows the total number and estimated cost of all buildings for which permits were issued in the 65 identical cities from which reports were received for the first half of each year, 1922 to 1932.

TABLE 5.—NUMBER AND ESTIMATED COST OF ALL BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 65 IDENTICAL CITIES, FIRST HALF OF EACH YEAR, 1922 TO 1932

Period	Buildings for which permits were issued		Estimated cost		Period	Buildings for which permits were issued		Estimated cost	
	Number	Index number	Amount	Index number		Number	Index number	Amount	Index number
First half of—					First half of—				
1922	243,479	100.0	$1,062,464,771	100.0	1928	216,509	88.9	$1,462,560,722	137.7
1923	283,289	116.4	1,418,779,382	133.5	1929	182,379	74.9	1,479,460,210	139.2
1924	299,769	123.1	1,518,088,421	142.9	1930	146,410	60.1	679,064,355	63.9
1925	289,014	118.7	1,620,413,012	152.5	1931	130,127	53.4	577,931,724	54.4
1926	254,564	104.6	1,539,207,242	144.9	1932	89,477	36.7	222,953,519	21.0
1927	237,853	97.7	1,443,232,520	135.8					

Figures are available throughout the entire 11 years for only 65 cities. The first half of 1922 equaling 100, the index number of buildings for which permits were issued stood at 36.7 for the first half of 1932, as compared with 118.7 for the peak year 1925.

Indicated expenditures, for building operation reached a low of 21 for the first half of 1932, as compared with a high of 152.5 reached during 1925.

The following cities were the leading builders of homes during the first half of 1931 and of 1932 upon the basis of families provided for per 10,000 of population:

First half of 1931:		First half of 1932:	
Washington	45. 3	Washington	15. 7
Long Beach	42. 2	Los Angeles	11. 2
Houston	38. 8	Long Beach	11. 1
Oklahoma City	34. 7	San Diego	11. 1
New York	33. 8	San Francisco	10. 7

Table 6 shows the five cities which led in total expenditures for all classes of building for the first half of each year, 1922 to 1932, inclusive.

TABLE 6.—CITIES LEADING IN TOTAL EXPENDITURES FOR ALL CLASSES OF BUILDINGS DURING FIRST HALF OF EACH YEAR, 1922 TO 1932

City and year	Expenditure	City and year	Expenditure
1922		*1928*	
New York City	$339, 143, 976	New York City	$557, 561, 891
Chicago	108, 699, 025	Chicago	184, 650, 200
Los Angeles	59, 459, 250	Detroit	65, 175, 361
Philadelphia	52, 429, 145	Philadelphia	63, 195, 840
Detroit	40, 650, 143	Los Angeles	52, 002, 570
1923		*1929*	
New York City	427, 633, 386	New York City	694, 118, 064
Chicago	189, 914, 112	Chicago	118, 898, 940
Los Angeles	93, 889, 185	Philadelphia	58, 533, 385
Philadelphia	75, 217, 095	Detroit	55, 855, 545
Detroit	61, 616, 302	Los Angeles	54, 071, 599
1924		*1930*	
New York City	548, 161, 458	New York City	202, 975, 234
Chicago	166, 436, 214	Chicago	41, 953, 917
Detroit	87, 195, 800	Los Angeles	39, 712, 901
Los Angeles	78, 828, 738	Philadelphia	34, 569, 340
Philadelphia	72, 573, 485	Washington	30, 522, 416
1925		*1931*	
New York City	461, 513, 809	New York City	234, 253, 030
Chicago	204, 239, 810	Chicago	37, 651, 195
Detroit	89, 562, 885	Washington	24, 421, 984
Philadelphia	85, 884, 680	Los Angeles	23, 096, 177
Los Angeles	83, 175, 457	Boston	17, 583, 794
1926		*1932*	
New York City	510, 263, 696	New York City	52, 658, 671
Chicago	183, 577, 891	Washington	44, 037, 364
Detroit	96, 204, 092	Los Angeles	11, 307, 409
Philadelphia	70, 379, 825	Philadelphia	7, 884, 358
Los Angeles	63, 161, 395	Baltimore	7, 521, 309
1927			
New York City	490, 119, 588		
Chicago	210, 210, 475		
Detroit	78, 742, 327		
Philadelphia	61, 683, 600		
Los Angeles	58, 192, 977		

Table 7 shows the cost of new buildings for which contracts were awarded by the different agencies of the Federal Government and by the different State governments during the first half of 1931 and of 1932, by geographic divisions.

TABLE 7.—FEDERAL AND STATE CONTRACTS FOR PUBLIC BUILDINGS, FIRST HALF OF 1931 AND OF 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	Contracts let by Federal Government		Contracts let by State governments	
	1931	1932	1931	1932
New England	$8,166,532	$2,442,968	$2,771,827	$1,237,447
Middle Atlantic	10,087,594	9,301,076	18,231,338	7,539,486
East North Central	3,985,002	9,339,976	2,754,796	3,087,354
West North Central	4,185,516	4,352,088	1,450,510	1,095,010
South Atlantic	12,174,354	44,631,683	2,370,555	2,432,217
South Central	7,850,163	8,703,133	322,357	5,923,087
Mountain and Pacific	8,966,954	7,008,543	2,583,555	2,982,149
Total	55,416,115	85,779,477	30,484,938	24,296,750

Contracts awarded by the different agencies of the United States Government for public buildings during the first half of 1932 totaled $85,779,477. This is over 50 per cent greater than the amount of contracts awarded by the Federal Government during the first half of 1931.

The value of contracts awarded by the various State governments during the first half of 1932 was nearly $25,000,000, which was some $6,000,000 less than the value of contracts awarded by the State governments during the first six months of 1931.

Housing by Employers in France

STUDIES of the extent to which housing is provided for their employees by industrial and commercial establishments employing more than 500 workers, by mining enterprises employing over 500 persons, and by the principal railroad systems of the country were made early in 1930 in France by the inspection service of the Ministry of Labor; later in the year a further study of the housing measures undertaken by companies employing from 200 to 500 workers was made. A summary of the findings of these studies is published in the Bulletin du Ministère du Travail for January–March, 1932 (pp. 20–23).

A total of 2,822 industrial undertakings, including 90 mining enterprises and 7 railroad systems, were covered by the inquiry. Of this number, 1,860 establishments with 2,106,415 employees had either provided houses for their employees or had contributed to societies engaged in the construction of workingmen's dwellings.

The following table shows the number of establishments covered, number of employees, the type of assistance given, and the number of employees provided with housing accommodations.

TYPE AND EXTENT OF HOUSING ASSISTANCE GIVEN BY ESTABLISHMENTS OF SPECIFIED CLASS IN FRANCE, AND NUMBER OF EMPLOYEES HOUSED

[Conversions into United States currency on basis of franc=3.92 cents]

Class of establishment	Total number of establishments	Total number of employees	Establishments providing financial aid but not houses			
			Number	Number of employees	Amount of aid	
					French currency	United States currency
Industrial and commercial establishments:					*Francs*	
Over 500 employees	944	1,259,550	119	179,301	43,115,124	$1,690,113
200–500 employees	1,781	546,294	143	45,192	10,404,030	407,838
Mining (over 500 employees)	90	342,417	------	------	------	------
Great railroad systems	7	487,075	------	------	------	------
Total	2,822	2,635,336	262	224,493	53,519,154	2,097,951

Class of establishment	Establishments providing houses but not financial aid			Establishments providing both houses and financial aid				
	Number	Number of employees	Employees housed	Number	Number of employees	Employees housed	Amount of aid	
							French currency	United States currency
Industrial and commercial establishments:							*Francs*	
Over 500 employees	288	345,746	88,694	241	406,196	83,847	234,696,539	$9,200,104
200–500 employees	683	203,474	52,542	289	97,014	20,645	24,430,731	957,685
Mining (over 500 employees)	49	142,532	77,782	41	199,885	121,182	53,180,706	2,084,684
Great railroad systems	------	------	------	7	487,075	69,448	132,512,720	5,194,498
Total	1,020	691,752	219,018	578	1,190,170	295,122	444,820,696	17,436,971

The table shows that a total of 1,598 establishments, or 57 per cent of the companies interviewed, provided houses alone or both houses and financial assistance for their employees, while 262 other companies gave financial assistance to housing operations. The total number of workers employed by companies providing houses was 1,881,922, and of this number 514,140, or about 27 per cent, were provided with housing accommodations. The lowest percentage of workers so provided for, 14 per cent, was found in the railroad systems and the highest, 58 per cent, in the mining enterprises.

The report also shows that the housing facilities provided included 461,038 family dwellings and 53,102 single rooms. The total amount spent for industrial housing, including contributions to the housing societies and direct financial aid to employees in addition to the erection of homes, was 498,339,850 francs ($19,534,922), of which amount industrial and commercial establishments employing more than 500 workers spent 55.8 per cent; industrial establishments employing from 200 to 500 workers, 7 per cent; mining enterprises, 10.8 per cent; and the railroad systems, 26.6 per cent.

The Rent Tax and Housing Construction in Germany [1]

BETWEEN 1914 and 1924 there was very little housing construction in Germany, and the result was an acute housing shortage, with which private institutions and individuals were not able to cope. In order to remedy this situation the German Government instituted a rent tax in 1924, to be paid by the owners of buildings constructed prior to July 1, 1918, and the proceeds to be lent to contractors at low rates of interest on favorable terms.

The method of computation of this tax is quite complicated, and the amount varies in the different States of Germany. However, in Prussia, which forms about two-thirds of all Germany in both population and area, the rent tax at present amounts to approximately 38 per cent of the present rent or appraised rental value.

By a Government order of October 1, 1931, the rent tax was reduced 20 per cent. The emergency decree of December 8, 1931, provided for a further reduction of 25 per cent effective April 1, 1935, a still further reduction of 25 per cent on April 1, 1937, and the final abolition of the tax after April 1, 1940. These reductions are figured on the amount of the tax being paid at the time of the decree, and not on the amount left over after each successive reduction. Thus, an owner paying 100 marks per month on April 1, 1932, would pay only 75 marks after April 1, 1935, and 50 marks after April 1, 1937, until the abolition of the tax in 1940.

In order to raise immediate funds, the emergency decree of December 8, 1931, gave the house owner the right to rid himself of the rent tax forever by making a single payment. This he could do before March 31, 1932 (later extended to September 30, 1932), by making a cash payment equal to three times (between September 30, 1932, and March 31, 1934, three and one-half times) the amount of the present annual rent tax. A house owner wishing to take advantage of this provision but lacking the money to do so, could borrow it from either public or private institutions. Mortgages covering such loans, by the terms of the decree, automatically take precedence over all other mortgages on the property, i. e., become first mortgages, but lose this character after 10 years.

Every year since 1924 the rent tax has produced revenue amounting to from $300,000,000 to $400,000,000 annually. In the seven years, 1926 to 1932, the rent tax produced a little over $2,500,000,000 of which about 46 per cent went to finance new housing construction. In the fiscal year ending March 31, 1928, the amount of the proceeds from the rent tax used for housing construction was 50 per cent. In 1928–29, however, only 49 per cent was so used; in 1929–30, 48 per cent; and in 1930–31, 47 per cent. In the year ending March 31, 1932, it was only 28 per cent, because the various State and municipal governments were almost continuously in financial distress due to declining receipts from other sources and mounting expenditures for the ever-increasing army of the unemployed, with the result that they used more and more of the rent tax receipts for fiscal purposes.

There has been no improvement in the financial condition of the States and communes. On the contrary, conditions have grown steadily worse, and reliable persons who are considered well-informed state that no part of the rent tax will be available for construction purposes in 1932.

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[1] Report from C. W. Gray and H. Rochell of the American consulate general, Berlin.

Of the approximately $4,300,000,000 spent for housing construction in Germany during the period 1924–1931, the rent tax furnished 29 per cent, while public money from all sources financed an even 50 per cent. The most important source of public money was the rent tax (57 per cent of the total). Were it not for 1931, when the tax was largely diverted into other channels, these percentages would be even higher. It is, therefore, apparent that the German rent tax has been of predominant importance in the financing of housing since the post-war inflation period.

Volume of Housing Construction

THE number of new dwellings constructed in the various years has been as follows:

TABLE 1.—NEW DWELLINGS CONSTRUCTED IN GERMANY, IN EACH YEAR, 1924 TO 1931

Year	New dwellings constructed, as shown by—	
	Official statistics [1]	Unofficial statistics [1]
1924		106,502
1925	164,437	178,930
1926	199,084	205,793
1927	284,444	288,635
1928	316,825	309,762
1929	315,703	317,682
1930	307,933	310,971
1931		240,000

[1] The minor discrepancies are due to the fact that the official figures cover only new constructions, while the unofficial figures (of the Deutsche Bau und Boden Bank) represent the net number of dwellings after taking into consideration additions through remodeling, new construction, etc., and losses through fire, razing, etc.

In 1929 the number of new dwellings built with public money, of which the rent tax contributed two-thirds, was 247,979, and in 1930 it decreased to 242,378.

Construction in 96 large cities.—The report of the Deutsche Bau und Boden Bank of Berlin shows that the number of building permits in 96 large Germany cities for the last three years was as follows:

TABLE 2.—NUMBER OF BUILDING PERMITS ISSUED IN 96 LARGE CITIES OF GERMANY, 1929–1931

Month	Number of building permits issued		
	1929 [1]	1930	1931
January	7,865	5,720	5,933
February	7,560	6,265	6,748
March	8,502	6,411	4,712
April	14,039	9,731	5,190
May	14,908	9,963	5,347
June	14,586	12,381	8,837
July	17,938	14,103	7,580
August	15,026	13,612	3,368
September	16,749	14,121	3,060
October	13,117	12,959	2,878
November	10,980	12,273	2,283
December	6,976	8,163	1,885
Total	148,246	125,702	57,821

[1] 92 cities only.

A comparison month by month between 1930 and 1931 shows that conditions steadily became worse, and by the end they had assumed catastrophic proportions.

Much the same story is told by the figures of constructions started during the same three years; these fell from 132,686 in 1929 to 125,281 in 1930 and to 50,130 in 1931. In the case of dwellings completed there is naturally a lag, so that the figures for 1931 do not make such a bad impression; the figures for the three years were 134,218, 161,752, and 119,902 respectively.

The trend in the 96 cities is clearly toward smaller dwellings, as can be seen from Table 3.

TABLE 3.—PERCENTAGE DISTRIBUTION OF NEW DWELLINGS IN GERMANY, ACCORDING TO SIZE, 1927 TO 1931

Size of dwelling	Per cent dwellings of specified size formed of total new housing				
	1927	1928	1929	1930	1931
Dwellings with 1 to 3 living rooms	34.2	35.6	43.0	49.4	57.0
Dwellings with 4 to 6 living rooms	62.6	60.4	53.8	48.2	41.1
Large-sized dwellings	3.2	4.0	3.2	2.4	1.9

Future Housing Prospects

CONSIDERING the building industry as a whole, it was only 15.4 per cent occupied at the end of April, 1932, and it is estimated that in the present year only 2,000,000,000 marks ($476,400,000), which is exactly one-half of what was spent in 1931, will be spent on new construction. The proceeds of the rent tax, once such a potent factor in housing, are being almost entirely diverted into other channels.

There is no housing shortage of consequence in Germany to-day, but there is a decided demand for cheaper dwellings. These, however, can not be built for a figure permitting them to be rented on a profitable basis. The result will probably be that housing construction will be definitely halted for some time to come.

WAGES AND HOURS OF LABOR

Average Working Hours per Week in American Industry, May, 1932

EACH month the Bureau of Labor Statistics by correspondence collects data relating to employment and pay rolls from representative establishments throughout the United States.[1] The bureau also asks for a statement of the total man-hours worked by all employees during the pay period. In May, 1932, reports concerning man-hours were received from 25,525 establishments having 2,441,089 employees.

From the total man-hours worked and the number of employees, the average man-hours per week were computed for each establishment. A count was then made of the number of plants having each separate number of hours of work and a total was made of the employees in such plants. These figures were then tabulated, and individual and cumulative percentages were computed. Such figures in detail are herein given for 89 manufacturing industries combined, for 9 representative manufacturing industries, and for 14 nonmanufacturing industrial groups.

Table 1 shows the number of plants reporting, the number of their employees in May, 1932, and the average hours of employment per week in each industrial group.

TABLE 1.—INDUSTRIES FOR WHICH MAN-HOUR FIGURES IN DETAIL ARE PRESENTED IN THIS ARTICLE

Industry	Plants	Employees	Average hours worked per employee per week
89 manufacturing industries	9,200	1,500,855	37.3
Representative manufacturing industries:			
Cotton goods	368	122,034	39.9
Sawmills	329	32,327	37.2
Hosiery and knit goods	178	48,773	38.8
Automobiles	157	206,876	37.4
Foundries and machine shops	646	63,151	31.1
Iron and steel	153	160,013	26.3
Boots and shoes	98	26,021	36.7
Steam railroad repair shops	397	42,368	36.5
Brick, tile, and terra cotta	302	9,660	33.6
Nonmanufacturing industries:			
Anthracite coal	133	84,138	31.0
Bituminous coal	706	103,395	24.7
Metalliferous mining	214	21,714	39.9
Quarrying and nonmetallic mining	463	17,714	39.0
Production of crude petroleum	145	12,620	52.5
Wholesale trade	1,089	26,887	47.8
Retail trade	3,047	113,153	44.3
Telephone and telegraph	6,305	242,420	40.0
Power and light	1,955	144,249	45.9
Electric-railroad and motor-bus operation and maintenance	364	88,972	49.5
Hotels	825	38,555	51.6
Laundries	457	26,770	43.8
Dyeing and cleaning	204	6,084	46.8
Canning and preserving	418	13,563	43.6
Grand total, manufacturing and nonmanufacturing	25,525	2,441,089	41.1

[1] For such data, see p. 687 of this issue.

Table 2 gives the detailed hour-by-hour figures for each industrial group named in Table 1. Space does not permit the inclusion of similar figures for the other manufacturing industries reporting to the bureau.

That the table may be fully understood, reference is made to the first line, showing all manufacturing industries combined. This shows that reports came from 5 plants whose 112 employees had an average of only 4 hours of employment in the week in May for which report was made. The number of employees in this group formed too small a part of the total employees covered (1,500,855) to permit a percentage statement.

Glancing down the table it is seen that 262 plants had an average of 36 hours of work per week for their employees. These 262 plants had 56,469 employees, and these employees constituted 3.8 per cent of the total number of employees. Opposite this figure in the last column it is seen that 49.7 per cent of all the employees in the 9,200 establishments had work for 36 or fewer hours per week. At the end of this section of the table it is seen that in all manufacturing industries combined there was an average of 37.3 hours of work provided in the week.

The report from the establishment gives only total man-hours worked by all employees, and does not show the number of employees in each plant working each specified number of hours. Hence the average hours per employee per plant is the unit of the present tabulation.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE

Manufacturing Industries

All industries

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
4 hours	5	112	(1)	(1)	32 hours	246	46,411	3.1	37.1
5 hours	5	269	(1)	(1)	33 hours	240	47,434	3.2	40.3
6 hours	2	11	(1)	(1)	34 hours	260	40,520	2.7	43.0
7 hours	4	113	(1)	(1)	35 hours	262	44,659	3.0	45.9
8 hours	13	1,238	0.1	0.1	36 hours	262	56,469	3.8	49.7
9 hours	16	785	.1	.2	37 hours	263	50,102	3.3	53.0
10 hours	23	2,133	.1	.3	38 hours	343	48,008	3.2	56.2
11 hours	22	2,129	.1	.5	39 hours	261	108,481	7.2	63.5
12 hours	22	1,332	.1	.5	40 hours	329	46,629	3.1	66.6
13 hours	39	1,754	.1	.7	41 hours	266	39,451	2.6	69.2
14 hours	29	4,486	.3	1.0	42 hours	296	45,163	3.0	72.2
15 hours	33	6,583	.4	1.4	43 hours	302	44,713	3.0	75.2
16 hours	50	7,149	.5	1.9	44 hours	331	43,458	2.9	78.1
17 hours	52	8,971	.6	2.5	45 hours	363	52,665	3.5	81.6
18 hours	75	29,393	2.0	4.4	46 hours	263	37,414	2.5	84.1
19 hours	85	17,450	1.2	5.6	47 hours	248	34,157	2.3	86.4
20 hours	94	26,438	1.8	7.4	48 hours	376	40,305	2.7	89.0
21 hours	103	26,095	1.7	9.1	49 hours	210	24,288	1.6	90.7
22 hours	123	33,962	2.3	11.4	50 hours	247	26,924	1.8	92.5
23 hours	120	15,867	1.1	12.4	51 hours	192	16,315	1.1	93.5
24 hours	189	37,579	2.5	14.9	52 hours	133	15,115	1.0	94.6
25 hours	155	32,421	2.2	17.1	53 hours	130	11,205	.7	95.3
26 hours	147	52,786	3.5	20.6	54 hours	193	17,177	1.1	96.4
27 hours	173	31,767	2.1	22.7	55 hours	132	13,864	.9	97.4
28 hours	215	28,314	1.9	24.6	56 hours	100	15,216	1.0	98.4
29 hours	193	40,666	2.7	27.3	57 hours	89	4,627	.3	98.7
30 hours	237	53,796	3.6	30.9	58 hours	55	2,478	.2	98.9
31 hours	216	46,792	3.1	34.0	59 hours	41	2,099	.1	99.0

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Manufacturing Industries—Continued

All industries—Continued

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
60 hours	97	3,095	0.2	99.2	75 hours	6	124	(1)	100.0
61 hours	22	1,520	.1	99.3	76 hours	6	88	(1)	100.0
62 hours	25	2,010	.1	99.4	77 hours	2	46	(1)	100.0
63 hours	27	2,189	.1	99.6	78 hours	1	4	(1)	100.0
64 hours	19	1,264	.1	99.7	79 hours	3	83	(1)	100.0
65 hours	23	700	(1)	99.7	81 hours	1	59	(1)	100.0
66 hours	17	457	(1)	99.7	82 hours	4	41	(1)	100.0
67 hours	18	1,161	.1	99.8	84 hours	1	6	(1)	100.0
68 hours	11	414	(1)	99.8	90 hours	1	8	(1)	100.0
69 hours	21	1,072	.1	99.9					
70 hours	6	26	(1)	99.9	Total and average (37.3 hours)	9,200	1,500,855		
71 hours	6	53	(1)	99.9					
72 hours	8	303	(1)	99.9					
73 hours	2	396	(1)	100.0					

Cotton goods

12 hours	2	188	0.2	0.2	41 hours	10	4,148	3.4	60.0
15 hours	2	330	.3	.4	42 hours	17	5,489	4.5	64.5
18 hours	2	1,117	.9	1.3	43 hours	11	3,058	2.5	67.0
19 hours	1	589	.5	2.0	44 hours	14	4,266	3.5	70.5
20 hours	9	1,390	1.1	3.0	45 hours	8	2,681	2.2	72.7
21 hours	2	437	.4	3.3	46 hours	5	3,549	2.9	75.6
22 hours	3	817	.7	4.0	47 hours	10	4,699	3.9	79.4
23 hours	1	136	.1	4.1	48 hours	7	1,686	1.4	80.8
24 hours	2	504	.4	4.5	49 hours	3	909	.7	81.6
25 hours	7	1,821	1.5	6.0	50 hours	18	4,221	3.5	85.0
26 hours	2	428	.4	6.4	51 hours	8	4,119	3.4	88.4
27 hours	9	1,837	1.5	7.9	52 hours	4	1,705	1.4	89.8
28 hours	4	1,697	1.4	9.3	53 hours	3	1,248	1.0	90.8
29 hours	14	4,951	4.1	13.3	54 hours	16	4,973	4.1	94.9
30 hours	19	2,939	2.4	15.7	55 hours	19	4,601	3.4	98.7
31 hours	17	6,563	5.4	21.1	56 hours	2	333	.3	98.9
32 hours	12	6,062	5.0	26.1	57 hours	3	729	.6	99.5
33 hours	6	2,421	2.0	28.0	60 hours	2	370	.3	99.8
34 hours	9	2,498	2.0	30.1	67 hours	1	16	(1)	99.9
35 hours	12	4,688	3.8	33.9	70 hours	1	8	(1)	100.0
36 hours	9	3,051	2.5	36.4	72 hours	1	170	.1	100.0
37 hours	19	10,845	8.9	45.3					
38 hours	14	4,443	3.6	49.0	Total and average (39.9 hrs.)	368	122,034		
39 hours	5	1,975	1.6	50.6					
40 hours	23	7,329	6.0	56.6					

Sawmills

4 hours	1	14	(1)	(1)	32 hours	12	1,097	3.4	34.6
9 hours	1	4	(1)	0.1	33 hours	13	913	2.8	37.4
11 hours	1	48	0.2	.2	34 hours	21	1,502	4.6	42.0
13 hours	2	64	.2	.4	35 hours	7	1,176	3.6	45.7
15 hours	4	325	1.0	1.4	36 hours	10	1,047	3.2	48.9
16 hours	3	73	.2	1.6	37 hours	8	793	2.5	51.4
17 hours	1	5	(1)	1.6	38 hours	12	1,494	4.6	56.0
18 hours	2	177	.5	2.2	39 hours	19	3,738	11.6	67.5
19 hours	5	178	.6	2.7	40 hours	14	1,016	3.1	70.7
21 hours	4	142	.4	3.2	41 hours	4	144	.4	71.1
22 hours	9	709	2.2	5.4	42 hours	12	2,001	6.2	77.3
23 hours	7	86	.3	5.6	43 hours	10	1,131	3.5	80.8
24 hours	16	2,106	6.5	12.2	44 hours	5	97	.3	81.1
25 hours	9	294	.9	13.1	45 hours	8	728	2.3	83.4
26 hours	2	129	.4	13.5	46 hours	3	70	.2	83.6
27 hours	6	272	.8	14.3	47 hours	14	1,580	4.9	88.5
28 hours	4	369	1.1	15.5	48 hours	10	864	2.7	91.1
29 hours	7	609	1.9	17.3	49 hours	5	208	.6	91.8
30 hours	17	3,381	10.5	27.8	50 hours	4	268	.8	92.6
31 hours	8	1,099	3.4	31.2	51 hours	1	30	.1	92.7

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Manufacturing Industries—Continued

Sawmills—Continued

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
52 hours	2	368	1.1	93.9	64 hours	1	115	0.4	99.5
53 hours	3	95	.3	94.1	65 hours	1	54	.2	99.7
54 hours	6	505	1.6	95.7	73 hours	1	82	.3	100.0
55 hours	2	47	.1	95.9	78 hours	1	4	(1)	100.0
57 hours	8	743	2.3	98.2					
59 hours	1	202	.6	98.8	Total and average (37.2 hrs.)	329	32,327		
60 hours	1	15	(1)	98.8					
62 hours	1	116	.4	99.2					

Hosiery and knit goods

4 hours	1	87	0.2	0.2	40 hours	6	1,853	3.8	53.6
10 hours	1	375	.8	.9	41 hours	4	1,017	2.1	55.7
11 hours	1	5	(1)	1.0	42 hours	7	1,397	2.9	58.5
12 hours	1	121	.2	1.2	43 hours	4	513	1.1	59.6
16 hours	2	3,852	7.7	9.1	44 hours	14	3,281	6.7	66.3
17 hours	2	61	.1	9.2	46 hours	3	3,707	7.6	73.9
19 hours	1	352	.7	10.0	47 hours	6	1,251	2.6	76.5
20 hours	2	173	.4	10.3	48 hours	4	691	1.4	77.9
21 hours	3	1,209	2.5	12.8	49 hours	4	617	1.3	79.1
23 hours	1	111	.2	13.0	50 hours	8	2,798	5.7	84.9
24 hours	6	706	1.4	14.5	51 hours	2	530	1.1	86.0
25 hours	1	8	(1)	14.5	52 hours	4	1,684	3.5	89.4
26 hours	4	409	.8	15.3	53 hours	3	1,164	2.4	91.8
27 hours	4	685	1.4	16.7	54 hours	8	1,263	2.6	94.4
28 hours	2	328	.7	17.4	55 hours	8	1,719	3.5	97.9
29 hours	1	57	.1	17.5	56 hours	1	175	.4	98.3
30 hours	5	1,987	4.1	21.6	57 hours	3	245	.5	98.8
31 hours	3	2,396	4.9	26.5	58 hours	2	95	.2	99.0
32 hours	1	37	.1	26.6	60 hours	1	250	.5	99.5
33 hours	10	1,965	4.0	30.6	67 hours	1	89	.2	99.7
34 hours	8	2,143	4.4	35.0	68 hours	1	160	.3	100.0
35 hours	3	604	1.2	36.2					
36 hours	6	1,375	2.8	39.1	Total and average (38.8 hrs.)	178	48,773		
37 hours	7	3,776	7.7	46.8					
38 hours	4	494	1.0	47.8					
39 hours	4	958	2.0	49.8					

Automobiles

13 hours	1	72	(1)	(1)	40 hours	4	4,268	2.1	84.1
17 hours	2	73	(1)	0.1	41 hours	4	1,208	.6	84.6
19 hours	2	3,263	1.6	1.6	42 hours	4	8,021	3.9	88.5
20 hours	3	1,847	.9	2.5	43 hours	2	49	(1)	88.5
21 hours	1	1,335	.6	3.2	44 hours	4	1,378	.7	89.2
22 hours	3	7,321	3.5	6.7	45 hours	4	2,144	1.0	90.2
23 hours	1	443	.2	6.9	46 hours	4	3,170	1.5	91.8
24 hours	5	7,679	3.7	10.7	47 hours	3	1,089	.5	92.3
25 hours	5	3,287	1.6	12.2	48 hours	6	520	.3	92.6
26 hours	4	7,476	3.6	15.9	49 hours	3	834	.4	93.0
27 hours	3	2,074	1.0	16.9	50 hours	2	223	.1	93.1
28 hours	4	2,423	1.2	18.0	51 hours	1	875	.4	93.5
29 hours	6	2,684	1.3	19.3	53 hours	1	67	(1)	93.5
30 hours	2	564	.3	19.6	54 hours	1	18	(1)	93.5
31 hours	8	3,492	1.7	21.3	55 hours	1	1,872	.9	94.4
32 hours	5	1,711	.8	22.1	56 hours	3	11,322	5.5	99.9
33 hours	8	6,351	3.1	25.2	63 hours	1	90	(1)	99.9
34 hours	2	3,137	1.5	26.7	64 hours	1	3	(1)	99.9
35 hours	7	2,465	1.2	27.9	67 hours	1	108	.1	100.0
36 hours	10	20,659	10.0	37.9					
37 hours	5	909	.4	38.3	Total and average (37.4 hrs.)	157	206,876		
38 hours	8	9,686	4.7	43.0					
39 hours	12	80,666	39.0	82.0					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Manufacturing Industries—Continued

Foundries and machine shops

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
6 hours	1	4	(1)	(1)	37 hours	21	1,610	2.5	80.9
7 hours	1	71	0.1	0.1	38 hours	25	1,697	2.7	83.6
8 hours	1	742	1.2	1.3	39 hours	9	891	1.4	85.0
9 hours	3	200	.3	1.6	40 hours	20	1,703	2.7	87.7
10 hours	5	274	.4	2.0	41 hours	16	884	1.4	89.1
11 hours	3	68	.1	2.2	42 hours	13	1,082	1.7	90.8
12 hours	3	203	.3	2.5	43 hours	13	353	.6	91.4
13 hours	8	485	.8	3.2	44 hours	7	85	.1	91.5
14 hours	6	586	.9	4.2	45 hours	9	614	1.0	92.5
15 hours	3	113	.2	4.3	46 hours	6	440	.7	93.2
16 hours	7	459	.7	5.1	47 hours	3	246	.4	93.6
17 hours	13	1,012	1.6	6.7	48 hours	10	485	.8	94.3
18 hours	9	1,387	2.2	8.9	49 hours	2	25	(1)	94.4
19 hours	17	1,597	2.5	11.4	50 hours	7	1,367	2.2	96.5
20 hours	16	2,170	3.4	14.8	51 hours	2	23	(1)	96.6
21 hours	11	1,142	1.8	16.6	52 hours	1	74	.1	96.7
22 hours	23	1,806	2.9	19.5	53 hours	1	106	.2	96.9
23 hours	18	2,128	3.4	22.9	54 hours	1	541	.9	97.7
24 hours	35	2,279	3.6	26.5	55 hours	4	159	.3	98.0
25 hours	22	1,553	2.5	28.9	57 hours	3	158	.3	98.2
26 hours	15	1,452	2.3	31.2	59 hours	1	36	.1	98.3
27 hours	30	4,230	6.7	37.9	60 hours	1	6	(1)	98.3
28 hours	35	2,663	4.2	42.2	62 hours	1	558	.9	99.2
29 hours	23	2,366	3.7	45.9	63 hours	1	18	(1)	99.2
30 hours	28	3,564	5.6	51.5	65 hours	1	7	(1)	99.2
31 hours	18	2,294	3.6	55.2	67 hours	1	495	.8	100.0
32 hours	23	5,201	8.2	63.4	69 hours	1	5	(1)	100.0
33 hours	26	4,193	6.6	70.1					
34 hours	18	900	1.4	71.5	Total and average (31.1 hrs.)	646	63,151		
35 hours	29	3,577	5.7	77.1					
36 hours	16	764	1.2	78.4					

Iron and steel

10 hours	1	194	0.1	0.1	33 hours	3	3,277	2.0	83.2
12 hours	1	85	.1	.2	34 hours	11	5,400	3.4	86.6
13 hours	1	19	(1)	.2	35 hours	4	851	.5	87.1
14 hours	1	1,371	.9	1.0	36 hours	3	2,824	1.8	88.9
15 hours	1	4,148	2.6	3.6	37 hours	2	7,047	4.4	93.3
16 hours	1	65	(1)	3.7	38 hours	2	55	(1)	93.3
17 hours	3	5,133	3.2	6.9	39 hours	1	646	.4	93.7
18 hours	8	18,901	11.8	18.7	40 hours	4	4,683	2.9	96.6
19 hours	2	7,484	4.7	23.4	41 hours	1	15	(1)	96.7
20 hours	4	1,022	.6	24.0	42 hours	1	85	.1	96.7
21 hours	8	13,839	8.6	32.7	43 hours	4	4,705	2.9	99.7
22 hours	9	11,362	7.1	39.8	44 hours	1	10	(1)	99.7
23 hours	7	5,853	3.7	43.4	45 hours	3	140	.1	99.7
24 hours	5	6,884	4.3	47.7	46 hours	1	8	(1)	99.7
25 hours	3	4,271	2.7	50.4	48 hours	1	3	(1)	99.8
26 hours	14	21,472	13.4	63.8	51 hours	1	30	(1)	99.8
27 hours	5	4,482	2.8	66.6	55 hours	1	100	.1	99.8
28 hours	8	6,920	4.3	70.9	59 hours	1	18	(1)	99.8
29 hours	6	7,664	4.8	75.7	62 hours	1	250	.2	100.0
30 hours	2	477	.3	76.0					
31 hours	11	6,088	3.8	79.8	Total and average (26.3 hrs.)	153	160,013		
32 hours	6	2,132	1.3	81.2					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Manufacturing Industries—Continued

Boots and shoes

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
11 hours	1	60	0.2	0.2	37 hours	1	74	0.3	50.6
12 hours	1	30	.1	.3	38 hours	2	645	2.5	53.1
13 hours	1	12	(1)	.4	39 hours	1	194	.7	53.8
15 hours	1	558	2.2	2.6	40 hours	5	810	3.1	56.9
16 hours	1	394	1.5	4.1	41 hours	3	292	1.1	58.0
18 hours	5	1,492	5.7	9.8	42 hours	2	372	1.4	59.5
19 hours	1	299	1.1	10.9	43 hours	8	2,549	9.8	69.3
23 hours	1	48	.2	11.1	45 hours	10	3,294	12.7	81.9
24 hours	4	1,254	4.8	15.9	46 hours	1	124	.5	82.4
25 hours	4	177	.7	16.6	47 hours	2	73	.3	82.7
26 hours	4	1,897	7.3	23.9	48 hours	2	325	1.2	83.9
27 hours	2	487	1.9	25.8	49 hours	2	570	2.2	86.1
28 hours	3	763	2.9	28.7	50 hours	3	1,243	4.8	90.9
29 hours	5	820	3.2	31.9	52 hours	4	838	3.2	94.1
30 hours	3	659	2.5	34.4	54 hours	3	1,342	5.2	99.3
31 hours	1	70	.3	34.7	55 hours	1	184	.7	100.0
33 hours	1	124	.5	35.2					
34 hours	6	2,091	8.0	43.2	Total and average (36.7 hrs.)	98	26,021		
35 hours	2	1,841	7.1	50.3					
36 hours	1	16	.1	50.3					

Steam railroad repair shops

11 hours	2	349	0.8	0.8	42 hours	26	1,584	3.7	74.1
18 hours	3	393	.9	1.8	43 hours	29	2,074	4.9	79.0
20 hours	1	779	1.8	3.6	44 hours	18	1,059	2.5	81.5
21 hours	2	1,490	3.5	7.1	45 hours	46	2,247	5.3	86.8
22 hours	2	341	.8	7.9	46 hours	7	672	1.6	88.4
23 hours	1	102	.2	8.2	47 hours	2	325	.8	89.1
24 hours	5	762	1.8	10.0	48 hours	16	1,628	3.8	93.0
25 hours	3	123	.3	10.2	49 hours	14	1,424	3.4	96.3
26 hours	4	3,397	8.0	18.3	50 hours	3	93	.2	96.5
27 hours	6	1,702	4.0	22.3	51 hours	11	784	1.9	98.4
28 hours	2	103	.2	22.5	52 hours	2	44	.1	98.5
29 hours	10	3,180	7.5	30.0	53 hours	5	202	.5	99.0
30 hours	2	51	.1	30.1	54 hours	8	161	.4	99.4
31 hours	6	1,275	3.0	33.2	55 hours	5	139	.3	99.7
32 hours	2	1,032	2.4	35.5	56 hours	2	16	(1)	99.7
33 hours	5	735	1.7	37.3	57 hours	2	5	(1)	99.7
34 hours	7	1,435	3.4	40.7	59 hours	2	23	.1	99.8
35 hours	5	522	1.2	41.9	60 hours	3	25	.1	99.8
36 hours	20	2,601	6.1	48.1	65 hours	1	9	(1)	99.9
37 hours	16	873	2.1	50.1	66 hours	1	53	.1	100.0
38 hours	28	2,453	5.8	55.9	67 hours	1	2	(1)	100.0
39 hours	15	2,575	6.1	62.0					
40 hours	35	2,442	5.8	67.8	Total and average (36.5 hrs.)	397	42,368		
41 hours	11	1,084	2.6	70.3					

Brick, tile, and terra cotta

5 hours	2	25	0.3	0.3	19 hours	9	440	4.6	19.5
8 hours	1	3	(1)	.3	20 hours	2	113	1.2	20.7
9 hours	3	82	.8	1.1	21 hours	7	258	2.7	23.4
10 hours	2	17	.2	1.3	22 hours	3	122	1.3	24.6
11 hours	3	65	.7	2.0	23 hours	5	84	.9	25.5
12 hours	2	17	.2	2.2	24 hours	2	7	.1	25.6
13 hours	12	364	3.8	5.9	25 hours	8	153	1.6	27.2
14 hours	4	167	1.7	7.7	26 hours	4	106	1.1	28.3
15 hours	2	29	.3	8.0	27 hours	7	124	1.3	29.5
16 hours	4	225	2.3	10.3	28 hours	15	847	8.8	38.3
17 hours	5	377	3.9	14.2	29 hours	5	388	4.0	42.3
18 hours	3	75	.8	15.0	30 hours	6	57	.6	42.9

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Manufacturing Industries—Continued

Brick, tile, and terra cotta—Continued

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
31 hours	7	87	.9	43.8	48 hours	5	103	1.1	88.8
32 hours	10	166	1.7	45.5	49 hours	5	202	2.1	90.9
33 hours	7	77	.8	46.3	50 hours	9	41	.4	91.3
34 hours	4	138	1.4	47.8	51 hours	8	214	2.2	93.5
35 hours	16	530	5.5	53.2	52 hours	1	34	.4	93.9
36 hours	8	907	9.4	62.6	53 hours	2	102	1.1	94.9
37 hours	13	253	2.6	65.2	54 hours	6	40	.4	95.3
38 hours	7	162	1.7	66.9	55 hours	3	164	1.7	97.0
39 hours	4	34	.4	67.3	57 hours	3	172	1.8	98.8
40 hours	3	323	3.3	70.6	60 hours	4	28	.3	99.1
41 hours	5	80	.8	71.4	61 hours	1	12	.1	99.2
42 hours	5	158	1.6	73.1	63 hours	1	4	(1)	99.3
43 hours	7	181	1.9	75.0	64 hours	2	71	.7	100.0
44 hours	7	151	1.6	76.5					
45 hours	19	431	4.5	81.0	Total and average (33.6 hrs.)	302	9,660		
46 hours	7	407	4.2	85.2					
47 hours	7	243	2.5	87.7					

Nonmanufacturing Industries

Anthracite coal

15 hours	1	265	0.3	0.3	39 hours	1	759	0.9	73.9
17 hours	7	2,492	3.0	3.3	40 hours	28	12,120	14.4	88.3
19 hours	4	2,058	2.4	5.7	44 hours	6	3,298	3.9	92.2
20 hours	18	20,608	24.5	30.2	46 hours	1	490	.6	92.8
24 hours	6	1,678	2.0	32.2	48 hours	3	1,504	1.8	94.6
25 hours	4	1,881	2.2	34.4	49 hours	1	694	.8	95.4
27 hours	8	6,036	7.2	41.6	52 hours	9	3,860	4.6	100.0
28 hours	2	420	.5	42.1					
32 hours	21	18,363	21.8	63.9	Total and average (31 hrs.)	133	84,138		
33 hours	1	505	.6	64.5					
35 hours	9	7,107	8.4	73.0					

Bituminous coal

4 hours	6	442	0.4	0.4	32 hours	20	1,791	1.7	79.9
5 hours	1	12	(1)	.4	33 hours	9	1,538	1.5	81.3
6 hours	9	771	.7	1.2	34 hours	12	1,487	1.4	82.8
7 hours	9	599	.6	1.8	35 hours	10	1,539	1.5	84.3
8 hours	29	2,860	2.8	4.5	36 hours	10	809	.8	85.1
9 hours	14	1,407	1.4	5.9	37 hours	13	2,461	2.4	87.4
10 hours	11	1,798	1.7	7.6	38 hours	18	3,150	3.0	90.5
11 hours	8	613	.6	8.2	39 hours	6	1,004	1.0	91.5
12 hours	29	3,459	3.3	11.6	40 hours	4	332	.3	91.8
13 hours	18	1,835	1.8	13.3	41 hours	5	505	.5	92.3
14 hours	19	2,760	2.7	16.0	42 hours	3	993	1.0	93.2
15 hours	18	2,836	2.7	18.8	44 hours	5	530	.5	93.7
16 hours	32	4,268	4.1	22.9	45 hours	8	1,962	1.9	95.6
17 hours	18	3,013	2.9	25.8	47 hours	4	1,197	1.2	96.8
18 hours	38	5,695	5.5	31.3	48 hours	8	10,042	1.0	97.8
19 hours	25	2,324	2.2	33.6	49 hours	1	80	.1	97.9
20 hours	49	7,237	7.0	40.6	50 hours	3	90	.1	98.0
21 hours	17	2,064	2.0	42.5	51 hours	6	1,101	1.1	99.0
22 hours	17	4,485	4.3	46.9	52 hours	2	418	.4	99.4
23 hours	30	4,516	4.4	51.3	54 hours	6	450	.4	99.9
24 hours	27	3,575	3.5	54.7	56 hours	1	13	(1)	99.9
25 hours	19	3,102	3.0	57.7	57 hours	1	6	(1)	99.9
26 hours	13	2,352	2.3	60.0	58 hours	1	29	(1)	99.9
27 hours	4	730	.7	60.7	69 hours	1	90	.1	100.0
28 hours	19	3,854	3.7	64.4					
29 hours	17	2,753	2.7	67.1	Total and average (24.7 hrs.)	706	103,395		
30 hours	47	10,506	10.2	77.2					
31 hours	6	912	.9	78.1					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Metalliferous mining

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
6 hours	3	24	0.1	0.1	44 hours	2	215	1.0	57.3
9 hours	1	132	.6	.7	45 hours	8	490	2.3	59.6
10 hours	2	227	1.0	1.8	46 hours	6	780	3.6	63.2
19 hours	1	83	.4	2.1	47 hours	11	808	3.7	66.9
20 hours	1	56	.3	2.4	48 hours	17	691	3.2	70.1
21 hours	2	457	2.1	4.5	49 hours	7	1,029	4.7	74.8
22 hours	8	471	2.2	6.7	50 hours	4	2,135	9.8	84.7
23 hours	5	862	4.0	10.6	52 hours	10	926	4.3	88.9
24 hours	5	330	1.5	12.2	53 hours	1	9	(1)	89.0
25 hours	4	192	.9	13.1	54 hours	6	1,235	5.7	94.7
26 hours	27	2,208	10.2	23.2	55 hours	3	138	.6	95.3
28 hours	1	44	.2	23.4	56 hours	3	91	.4	95.7
29 hours	11	56	.3	23.7	57 hours	6	543	2.5	98.2
30 hours	4	489	2.3	25.9	59 hours	1	37	.2	98.4
31 hours	3	691	3.2	29.1	60 hours	1	3	(1)	98.4
32 hours	1	5	(1)	29.1	62 hours	2	107	.5	98.9
33 hours	3	819	3.8	32.9	64 hours	2	89	.4	99.3
34 hours	6	355	1.6	34.5	68 hours	3	9	(1)	99.3
35 hours	2	14	.1	34.6	80 hours	1	131	.6	99.9
36 hours	3	2,002	9.2	43.8	81 hours	1	2	(1)	100.0
37 hours	7	1,202	5.5	49.4	84 hours	5	10	(1)	100.0
38 hours	2	3	(1)	49.4					
40 hours	2	347	1.6	51.0	Total and average (39.9 hrs.)	214	21,714	------	------
41 hours	3	921	4.2	55.2					
42 hours	3	86	.4	55.6					
43 hours	4	160	.7	56.4					

Quarrying and nonmetallic mining

6 hours	1	7	(1)	(1)	42 hours	20	2,648	14.9	67.2
8 hours	2	20	0.1	0.2	43 hours	10	202	1.1	68.4
9 hours	1	152	.9	1.0	44 hours	16	665	3.8	72.1
10 hours	2	40	.2	1.2	45 hours	8	221	1.2	73.4
11 hours	2	39	.2	1.5	46 hours	5	144	.8	74.2
12 hours	2	55	.3	1.8	47 hours	10	516	2.9	77.1
13 hours	4	14	.1	1.8	48 hours	4	113	.6	77.7
14 hours	6	250	1.4	3.3	49 hours	9	98	.6	78.3
15 hours	2	112	.6	3.9	50 hours	5	172	1.0	79.2
16 hours	4	273	1.5	5.4	51 hours	14	269	1.5	80.8
17 hours	5	382	2.2	7.6	52 hours	11	557	3.1	83.9
18 hours	3	66	.4	8.0	53 hours	6	199	1.1	85.0
19 hours	1	2	(1)	8.0	54 hours	10	288	1.6	86.7
20 hours	10	264	1.5	9.5	55 hours	1	214	1.2	87.9
21 hours	7	215	1.2	10.7	56 hours	22	433	2.4	90.3
22 hours	2	24	.1	10.8	57 hours	9	172	1.0	91.3
23 hours	5	91	.5	11.3	58 hours	14	444	2.5	93.8
24 hours	5	90	.5	11.8	59 hours	5	64	.4	94.1
25 hours	5	639	3.6	15.4	60 hours	6	203	1.1	95.3
26 hours	13	199	1.1	16.6	61 hours	10	236	1.3	96.6
27 hours	13	730	4.1	20.7	63 hours	1	18	.1	96.7
28 hours	6	116	.7	21.3	64 hours	1	8	(1)	96.8
29 hours	7	181	1.0	22.4	65 hours	1	64	.4	97.1
30 hours	12	379	2.1	24.5	66 hours	1	9	.1	97.2
31 hours	12	169	1.0	25.5	67 hours	1	10	.1	97.2
32 hours	8	380	2.1	27.6	68 hours	2	52	.3	97.5
33 hours	15	247	1.4	29.0	69 hours	5	82	.5	98.0
34 hours	16	1,171	6.6	35.6	72 hours	2	97	.5	98.5
35 hours	13	328	1.9	37.5	74 hours	1	251	1.4	100.0
36 hours	13	600	3.4	40.8	75 hours	2	4	(1)	100.0
37 hours	9	203	1.1	42.0	77 hours	1	3	(1)	100.0
38 hours	8	275	1.6	43.5					
39 hours	8	622	3.5	47.1	Total and average (39 hrs.)	463	17,714	------	------
40 hours	14	501	2.8	50.0					
41 hours	14	422	2.4	52.3					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Production of crude petroleum

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
14 hours	1	5	(1)	(1)	48 hours	2	64	0.5	17.4
17 hours	1	3	(1)	0.1	49 hours	2	47	.4	17.7
18 hours	1	13	0.1	.2	50 hours	2	5,336	42.3	60.0
20 hours	1	9	.1	.2	51 hours	2	611	4.8	64.9
21 hours	1	6	(1)	.3	52 hours	5	215	1.7	66.6
23 hours	2	31	.2	.5	53 hours	1	21	.2	66.7
24 hours	2	29	.2	.7	54 hours	10	531	4.2	71.0
25 hours	2	12	.1	.8	55 hours	6	103	.8	71.8
26 hours	2	17	.1	1.0	56 hours	3	487	3.9	75.6
27 hours	2	16	.1	1.1	57 hours	3	1,077	8.5	84.2
28 hours	2	20	.2	1.3	58 hours	5	231	1.8	86.0
29 hours	1	12	.1	1.4	59 hours	4	51	.4	86.4
30 hours	2	49	.4	1.7	60 hours	3	179	1.4	87.8
31 hours	1	2	(1)	1.8	61 hours	1	120	1.0	88.8
32 hours	3	31	.2	2.0	62 hours	6	168	1.3	90.8
33 hours	1	26	.2	2.2	63 hours	4	203	1.6	91.7
34 hours	3	60	.5	2.7	64 hours	4	12	.1	91.8
35 hours	1	8	.1	2.7	65 hours	2	383	3.0	94.8
36 hours	2	49	.4	3.1	66 hours	2	149	1.2	96.0
37 hours	2	123	1.0	4.1	67 hours	1	12	.1	96.1
39 hours	1	3	(1)	4.1	68 hours	1	85	.7	96.8
40 hours	4	34	.3	4.4	69 hours	4	157	1.2	98.0
41 hours	4	60	.5	4.9	74 hours	1	8	.1	98.1
42 hours	4	89	.7	5.6	76 hours	1	111	.9	99.0
44 hours	6	948	7.5	13.1	83 hours	1	128	1.0	100.0
45 hours	5	67	.5	13.6					
46 hours	3	11	.1	13.7	Total and average (52.5 hrs.)	145	12,620		
47 hours	9	398	3.2	16.9					

Wholesale trade

13 hours	1	18	0.1	0.1	47 hours	47	3,461	12.9	54.3
14 hours	2	88	.3	.4	48 hours	81	1,605	6.0	60.3
16 hours	1	1	(1)	.4	49 hours	65	1,414	5.3	65.6
18 hours	1	39	.1	.5	50 hours	72	1,601	6.0	71.5
20 hours	1	2	(1)	.6	51 hours	44	933	3.5	75.0
21 hours	5	50	.2	.7	52 hours	38	995	3.7	78.7
22 hours	3	65	.2	1.0	53 hours	42	827	3.1	81.8
23 hours	4	52	.2	1.2	54 hours	64	1,225	4.6	86.3
24 hours	2	125	.5	1.6	55 hours	39	649	2.4	88.7
25 hours	4	41	.2	1.8	56 hours	54	456	1.7	90.4
26 hours	2	90	.3	2.1	57 hours	18	305	1.1	91.6
28 hours	1	15	.1	2.2	58 hours	17	430	1.6	93.2
29 hours	3	31	.1	2.3	59 hours	34	448	1.7	94.8
30 hours	4	44	.2	2.5	60 hours	32	655	2.4	97.3
31 hours	7	65	.2	2.7	61 hours	8	204	.8	98.0
32 hours	2	18	.1	2.8	62 hours	8	134	.5	98.5
33 hours	5	58	.2	3.0	63 hours	1	64	.2	98.8
34 hours	6	755	2.8	5.8	65 hours	8	85	.2	99.1
35 hours	6	117	.4	6.2	66 hours	6	90	.3	99.4
36 hours	7	241	.9	7.1	67 hours	2	58	.2	99.6
37 hours	8	96	.4	7.5	68 hours	2	49	.2	99.8
38 hours	12	439	1.6	9.1	70 hours	1	10	(1)	99.9
39 hours	16	385	1.4	10.5	71 hours	1	7	(1)	99.9
40 hours	27	361	1.3	11.9	72 hours	6	21	.1	100.0
41 hours	21	245	.9	12.8	73 hours	1	7	(1)	100.0
42 hours	20	965	3.6	16.4	75 hours	1	4	(1)	100.0
43 hours	40	614	2.3	18.7					
44 hours	73	1,522	5.7	24.3	Total and average (47.8 hrs.)	1,089	26,887		
45 hours	73	2,744	10.2	34.5					
46 hours	40	1,864	6.9	41.5					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Retail trade

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
12 hours	1	5	(1)	(1)	49 hours	48	1,720	1.5	87.3
19 hours	3	120	0.1	0.1	50 hours	62	1,215	1.1	88.4
20 hours	1	54	(1)	.2	51 hours	254	2,900	2.6	91.0
21 hours	2	26	(1)	.2	52 hours	41	1,571	1.4	92.4
22 hours	1	27	(1)	.2	53 hours	117	900	.8	93.1
23 hours	6	152	.1	.3	54 hours	249	1,829	1.6	94.8
24 hours	2	18	(1)	.4	55 hours	32	534	.5	95.2
25 hours	10	153	.1	.5	56 hours	65	445	.4	95.6
26 hours	3	26	(1)	.5	57 hours	46	344	.3	95.9
27 hours	8	123	.1	.6	58 hours	125	1,412	1.2	97.2
28 hours	25	225	.2	.8	59 hours	9	78	.1	97.3
29 hours	26	1,108	1.0	1.8	60 hours	163	665	.6	97.8
30 hours	39	482	.4	2.2	61 hours	39	287	.3	98.1
31 hours	18	885	.8	3.0	62 hours	40	341	.3	98.4
32 hours	14	2,037	1.8	4.8	63 hours	169	868	.8	99.2
33 hours	27	2,525	2.2	7.0	64 hours	10	41	(1)	99.2
34 hours	41	2,848	2.5	9.6	65 hours	23	154	.1	99.3
35 hours	22	1,992	1.8	11.3	66 hours	11	50	(1)	99.4
36 hours	14	1,298	1.1	12.5	68 hours	1	11	(1)	99.4
37 hours	73	4 746	4.2	16.7	69 hours	35	131	.1	99.5
38 hours	90	3,644	3.2	19.9	70 hours	66	268	.2	99.7
39 hours	37	2,230	2.0	21.9	71 hours	41	111	.1	99.8
40 hours	45	11,822	10.4	32.3	72 hours	26	100	.1	99.9
41 hours	168	2,984	2.6	34.9	73 hours	15	41	(1)	100.0
42 hours	52	9,896	8.7	43.7	74 hours	2	24	(1)	100.0
43 hours	76	3,436	3.0	46.7	79 hours	2	19	(1)	100.0
44 hours	97	2,136	1.9	48.6					
45 hours	152	9,868	8.7	57.3	Total and average (44.3 hrs.)	3,047	113,153	------	-------
46 hours	68	10,950	9.7	67.0					
47 hours	63	9,150	8.1	75.1					
48 hours	172	12,128	10.7	85.8					

Telephone and telegraph

28 hours	1	107	(1)	(1)	49 hours	23	626	0.3	98.9
33 hours	132	2,215	0.9	1.0	50 hours	77	634	.3	99.2
34 hours	1	225	.1	1.1	51 hours	22	320	.1	99.3
36 hours	104	8,413	3.5	4.5	52 hours	19	119	(1)	99.4
37 hours	898	48,439	20.0	24.5	53 hours	35	180	.1	99.5
38 hours	540	20,704	8.5	33.0	54 hours	31	241	.1	99.6
39 hours	1,051	36,409	15.0	48.1	55 hours	28	166	.1	99.6
40 hours	705	19,823	8.2	56.2	56 hours	12	47	(1)	99.7
41 hours	458	48,105	19.8	76.1	59 hours	4	84	(1)	99.7
42 hours	652	14,797	6.1	82.2	66 hours	4	12	(1)	99.7
43 hours	375	17,328	7.1	89.3	67 hours	62	311	.1	99.8
44 hours	386	11,191	4.6	94.0	68 hours	151	440	.2	100.0
45 hours	97	5,567	2.3	96.2					
46 hours	76	1,862	.8	97.0	Total and average (40 hours)	6,305	242,420	------	-------
47 hours	214	2,294	.9	98.0					
48 hours	147	1,761	.7	98.7					

Power and light

14 hours	1	42	(1)	(1)	34 hours	11	784	0.5	1.3
17 hours	1	4	(1)	(1)	35 hours	21	1,123	.8	2.1
18 hours	1	10	(1)	(1)	36 hours	6	1,290	.9	3.0
23 hours	5	60	(1)	0.1	37 hours	23	4,066	2.8	5.8
24 hours	2	27	(1)	.1	38 hours	49	1,531	1.1	6.9
26 hours	4	38	(1)	.1	39 hours	13	850	.6	7.5
28 hours	3	23	(1)	.1	40 hours	52	15,394	10.7	18.1
30 hours	3	479	0.3	.5	41 hours	52	4,992	3.5	21.6
32 hours	5	60	(1)	.5	42 hours	66	16,822	11.7	33.3
33 hours	5	380	.3	.8	43 hours	171	20,158	14.0	47.2

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Power and light—Continued

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
44 hours	170	14,414	10.0	57.2	61 hours	8	57	(1)	98.6
45 hours	153	8,079	5.5	62.8	62 hours	5	68	(1)	98.6
46 hours	175	12,571	8.7	71.5	63 hours	1	21	(1)	98.7
47 hours	80	9,498	6.6	78.1	64 hours	8	132	0.1	98.7
48 hours	91	6,032	4.2	82.3	65 hours	63	814	.6	99.3
49 hours	32	4,982	3.5	85.8	66 hours	3	9	(1)	99.3
50 hours	59	4,566	3.2	88.9	67 hours	62	183	.1	99.4
51 hours	43	2,906	2.0	90.9	68 hours	1	7	(1)	99.4
52 hours	29	1,020	.7	91.6	70 hours	5	459	.3	99.8
53 hours	120	3,817	2.6	94.3	73 hours	7	78	.1	99.8
54 hours	34	1,174	.8	95.1	75 hours	7	251	.2	100.0
55 hours	23	907	.6	95.7	78 hours	1	7	(1)	100.0
56 hours	54	1,871	1.3	97.0					
57 hours	14	334	.2	97.3	Total and average (45.9 hrs.)	1,955	144,249		
58 hours	6	115	.1	97.3					
59 hours	197	1,652	1.1	98.5					
60 hours	10	92	.1	98.6					

Electric-railroad and motor-bus operation and maintenance

12 hours	1	176	0.2	0.2	53 hours	26	4,342	4.9	82.2
18 hours	1	6	(1)	.2	54 hours	20	3,004	3.4	85.6
22 hours	1	276	.3	.5	55 hours	10	1,097	1.2	86.9
25 hours	1	87	.1	.6	56 hours	10	2,656	3.0	89.8
29 hours	2	86	.1	.7	57 hours	6	584	.7	90.5
32 hours	3	127	.1	.9	58 hours	3	138	.2	90.7
36 hours	2	412	.5	1.3	59 hours	3	177	.2	90.9
37 hours	4	6,377	7.2	8.5	60 hours	7	2,059	2.3	93.2
40 hours	8	1,222	1.4	9.9	61 hours	7	876	1.0	94.2
42 hours	4	684	.8	10.6	62 hours	3	4,419	5.0	99.1
43 hours	6	901	1.0	11.6	63 hours	1	73	.1	99.2
44 hours	8	870	1.0	12.6	64 hours	2	33	(1)	99.2
45 hours	18	6,738	7.6	20.2	65 hours	1	33	(1)	99.3
46 hours	42	3,812	4.3	24.5	66 hours	7	337	.4	99.7
47 hours	19	5,767	6.5	31.0	67 hours	3	171	.2	99.8
48 hours	16	13,857	15.6	46.5	69 hours	2	102	.1	100.0
49 hours	53	10,571	11.9	58.4	71 hours	1	36	(1)	100.0
50 hours	34	10,511	11.8	70.2					
51 hours	13	1,166	2.4	72.7	Total and average (49.5 hrs.)	364	88,972		
52 hours	16	4,189	4.7	77.4					

Hotels

17 hours	1	30	0.1	0.1	40 hours	5	155	0.4	10.7
22 hours	2	95	.2	.3	41 hours	9	1,076	2.8	13.5
23 hours	4	113	.3	.6	42 hours	12	951	2.5	15.9
24 hours	2	46	.1	.7	43 hours	18	495	1.3	17.2
25 hours	1	4	(1)	.7	44 hours	17	1,063	2.8	20.0
26 hours	4	60	.2	.9	45 hours	16	847	2.2	22.2
27 hours	2	191	.5	1.4	46 hours	22	1,143	3.0	25.1
28 hours	1	5	(1)	1.4	47 hours	24	1,211	3.1	28.3
29 hours	1	131	.3	1.8	48 hours	39	3,566	9.2	37.5
31 hours	1	11	(1)	1.8	49 hours	32	1,436	3.7	41.3
32 hours	6	136	.4	2.1	50 hours	32	1,724	4.5	45.7
33 hours	4	472	1.2	3.4	51 hours	24	1,024	2.7	48.4
34 hours	5	87	.2	3.6	52 hours	28	1,184	3.1	51.5
35 hours	1	26	.1	3.6	53 hours	30	1,734	4.5	56.0
36 hours	2	15	(1)	3.7	54 hours	32	2,748	7.1	63.1
37 hours	4	43	.1	3.8	55 hours	92	5,223	13.5	76.6
38 hours	7	1,746	4.5	8.3	56 hours	41	1,999	5.2	81.8
39 hours	5	755	2.0	10.3	57 hours	30	1,462	3.8	85.6

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Hotels—Continued

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
58 hours	25	402	1.0	86.7	73 hours	8	68	0.2	98.8
59 hours	14	333	.9	87.5	74 hours	3	15	(1)	98.9
60 hours	24	760	2.0	89.5	75 hours	3	18	(1)	98.9
61 hours	21	538	1.4	90.9	76 hours	3	31	.1	99.0
62 hours	21	790	2.0	92.9	77 hours	2	12	(1)	99.0
63 hours	18	435	1.1	94.1	78 hours	5	117	.3	99.3
64 hours	14	198	.5	94.6	79 hours	4	18	(1)	99.4
65 hours	15	469	1.2	95.8	81 hours	3	53	.1	99.5
66 hours	14	155	.4	96.2	82 hours	2	31	.1	99.6
67 hours	9	120	.3	96.5	83 hours	7	151	.4	100.0
68 hours	12	147	.4	96.9	84 hours	3	11	(1)	100.0
69 hours	14	283	.7	97.6					
70 hours	12	112	.3	97.9	Total and average (51.6 hrs.)	825	38,555	------	------
71 hours	5	65	.2	98.1					
72 hours	8	216	.6	98.6					

Laundries

11 hours	1	48	0.2	0.2	40 hours	26	1,637	6.1	27.2
13 hours	1	29	.1	.3	41 hours	16	1,223	4.6	31.7
16 hours	1	68	.3	.5	42 hours	25	1,223	4.6	36.3
17 hours	1	15	.1	.6	43 hours	24	1,572	5.9	42.2
21 hours	1	8	(1)	.6	44 hours	33	2,539	9.5	51.7
22 hours	2	64	.2	.9	45 hours	43	2,864	10.7	62.4
23 hours	7	106	.4	1.3	46 hours	21	1,912	7.1	69.5
24 hours	6	314	1.2	2.4	47 hours	21	1,234	4.6	74.1
25 hours	3	31	.1	2.6	48 hours	18	1,146	4.3	78.4
26 hours	5	84	.3	2.9	49 hours	14	1,687	6.3	84.7
27 hours	5	125	.5	3.3	50 hours	11	1,180	4.4	89.1
28 hours	1	34	.1	3.5	51 hours	9	430	1.6	90.7
29 hours	7	185	.7	4.2	52 hours	11	1,002	3.7	94.4
30 hours	8	126	.5	4.6	54 hours	17	971	3.6	98.1
31 hours	10	314	1.2	5.8	55 hours	3	206	.8	98.8
32 hours	17	471	1.8	7.6	56 hours	1	34	.1	99.0
33 hours	12	304	1.1	8.7	57 hours	1	69	.3	99.2
34 hours	10	326	1.2	9.9	59 hours	1	79	.3	99.5
35 hours	9	473	1.8	11.7	60 hours	3	121	.5	100.0
36 hours	11	313	1.2	12.8	65 hours	1	6	(1)	100.0
37 hours	15	599	2.2	15.1					
38 hours	11	557	2.1	17.2	Total and average (43.8 hrs.)	457	26,770	------	------
39 hours	14	1,041	3.9	21.0					

Dyeing and cleaning

19 hours	1	15	0.2	0.2	46 hours	16	682	11.2	52.3
24 hours	1	4	.1	.3	47 hours	17	460	7.6	59.9
29 hours	1	5	.1	.4	48 hours	19	646	10.6	70.5
32 hours	4	20	.3	.7	49 hours	10	619	10.2	80.7
33 hours	4	67	1.1	1.8	50 hours	4	155	2.5	83.2
34 hours	1	6	.1	1.9	52 hours	3	37	.6	83.8
35 hours	3	60	1.0	2.9	54 hours	18	358	5.9	89.7
36 hours	5	65	1.1	4.0	55 hours	3	32	.5	90.2
37 hours	3	60	1.0	5.0	56 hours	2	65	1.1	91.3
38 hours	9	324	5.3	10.3	57 hours	3	121	2.0	93.3
39 hours	7	102	1.7	12.0	58 hours	1	31	.5	93.8
40 hours	13	504	8.3	20.2	59 hours	3	155	2.5	96.3
41 hours	4	40	.7	20.9	60 hours	7	223	3.7	100.0
42 hours	5	236	3.9	24.8					
43 hours	9	145	2.4	27.2	Total and average (46.8 hrs.)	204	6,084	------	------
44 hours	13	226	3.7	30.9					
45 hours	15	621	10.2	41.1					

[1] Less than one-tenth of 1 per cent.

TABLE 2.—MANUFACTURING AND NONMANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO AVERAGE WEEKLY MAN-HOURS PER EMPLOYEE—Con.

Nonmanufacturing Industries—Continued

Canning and preserving

Average man-hours worked per week	Number of establishments	Employees			Average man-hours worked per week	Number of establishments	Employees		
		Number	Per cent of total	Cumulative per cent			Number	Per cent of total	Cumulative per cent
4 hours	2	21	0.2	0.2	40 hours	10	1,464	10.8	35.3
6 hours	1	42	.3	.5	41 hours	11	156	1.2	36.4
7 hours	2	76	.6	1.0	42 hours	9	304	2.2	38.7
8 hours	1	19	.1	1.2	43 hours	9	138	1.0	39.7
9 hours	1	85	.6	1.8	44 hours	9	1,632	12.0	51.7
10 hours	3	40	.3	2.1	45 hours	17	450	3.3	55.0
11 hours	3	394	2.9	5.0	46 hours	4	78	.6	55.6
12 hours	3	32	.2	5.2	47 hours	14	413	3.0	58.6
14 hours	3	27	.2	5.4	48 hours	22	661	4.9	63.5
15 hours	1	18	.1	5.6	49 hours	11	671	4.9	68.5
16 hours	1	3	(1)	5.6	50 hours	16	433	3.2	71.6
17 hours	4	40	.3	5.9	51 hours	15	333	2.5	74.1
18 hours	3	27	.2	6.1	52 hours	27	473	3.5	77.6
19 hours	2	61	.4	6.5	53 hours	15	304	2.2	79.8
20 hours	2	10	.1	6.6	54 hours	16	353	2.6	82.4
21 hours	7	85	.6	7.2	55 hours	21	538	4.0	86.4
22 hours	3	26	.2	7.4	56 hours	11	230	1.7	88.1
23 hours	1	18	.1	7.5	57 hours	9	329	2.4	90.5
24 hours	3	167	1.2	8.8	58 hours	3	77	.6	91.1
25 hours	2	37	.3	9.1	59 hours	9	318	2.3	93.4
26 hours	4	38	.3	9.3	60 hours	8	433	3.2	96.6
27 hours	1	17	.1	9.5	61 hours	2	83	.6	97.2
28 hours	7	317	2.3	11.8	62 hours	8	252	1.9	99.1
29 hours	6	116	.9	12.7	64 hours	2	21	.2	99.2
30 hours	10	658	4.9	17.5	65 hours	1	25	.2	99.4
31 hours	2	29	.2	17.7	67 hours	1	27	.2	99.6
32 hours	3	27	.2	17.9	68 hours	2	43	.3	99.9
33 hours	7	109	.8	18.7	70 hours	1	4	(1)	100.0
34 hours	6	142	1.0	19.8	72 hours	1	3	(1)	100.0
35 hours	9	108	.8	20.6					
36 hours	9	122	.9	21.5	Total and average (43.6 hrs.)	418	13,563		
37 hours	9	126	.9	22.4					
38 hours	11	227	1.7	24.1					
39 hours	2	53	.4	24.5					

[1] Less than one-tenth of 1 per cent.

Table 3 shows the average man-hours worked per employee per week, in May, 1932, for each of the industries reporting to the bureau.

TABLE 3.—AVERAGE MAN-HOURS WORKED PER WEEK IN EACH INDUSTRY, MAY, 1932

Industry	Average man-hours worked per week	Industry	Average man-hours worked per week
Manufacturing		*Manufacturing*—Continued	
Food and kindred products:		Textiles and their products:	
Slaughtering and meat packing	47.2	Cotton goods	39.9
Confectionery	41.3	Hosiery and knit goods	38.8
Ice cream	53.7	Silk goods	35.2
Flour	48.4	Woolen and worsted goods	37.0
Baking	47.0	Carpets and rugs	28.2
Sugar refining, cane	53.3	Dyeing and finishing textiles	38.0
Beet sugar	49.6	Clothing, men's	37.4
Beverages	43.9	Shirts and collars	36.9
Butter	55.7	Clothing, women's	40.0

TABLE 3.—AVERAGE MAN-HOURS WORKED PER WEEK IN EACH INDUSTRY, MAY, 1932—Continued

Industry	Average man-hours worked per week
Manufacturing—Continued	
Textiles and their products—Continued.	
Millinery	36.8
Corsets and allied garments	41.5
Cotton small wares	37.7
Hats, fur-felt	26.4
Men's furnishings	28.7
Iron and steel and their products, not including machinery:	
Iron and steel	26.3
Cast-iron pipe	33.2
Structural-iron work	32.5
Hardware	29.8
Steam fitting and steam and hot-water heating apparatus	31.6
Stoves	33.4
Bolts, nuts, washers, and rivets	31.3
Cutlery (not including silver and plated cutlery) and edge tools	40.3
Forgings, iron and steel	28.1
Plumbers' supplies	32.5
Tin cans and other tinware	44.4
Tools (not including edge tools, machine tools, files, or saws)	28.3
Wirework	38.5
Lumber and allied products:	
Lumber, sawmills	37.2
Lumber, millwork	35.2
Furniture	31.2
Turpentine and rosin	56.4
Leather and its manufactures:	
Leather	39.7
Boots and shoes	36.7
Paper and printing:	
Paper and pulp	42.5
Paper boxes	40.6
Printing, book and job	38.8
Printing, newspapers and periodicals	43.1
Chemicals and allied products:	
Chemicals	43.1
Fertilizers	41.1
Petroleum refining	45.1
Cottonseed oil, cake, and meal	61.1
Druggists' preparations	40.6
Explosives	36.0
Paints and varnishes	44.8
Rayon	40.2
Soap	45.0
Stone, clay, and glass products:	
Cement	42.7
Brick, tile, and terra cotta	33.6
Pottery	32.3
Glass	38.7
Marble, granite, slate, and other stone products	36.4
Nonferrous metals and their products:	
Stamped and enameled ware	39.5
Brass, bronze, and copper products	31.1
Aluminum manufactures	38.5
Clocks, time-recording devices, and clock movements	30.3
Gas and electric fixtures, lamps, lanterns, and reflectors	32.9
Manufacturing—Continued	
Nonferrous metals and their products—Continued.	
Plated ware	34.6
Smelting and refining—copper, lead, and zinc	35.0
Jewelry	27.9
Tobacco manufactures:	
Chewing and smoking tobacco and snuff	41.9
Cigars and cigarettes	38.0
Transportation equipment:	
Automobiles	37.4
Aircraft	43.0
Cars, electric and steam railroad	33.7
Locomotives	29.5
Shipbuilding	34.3
Rubber products:	
Rubber tires and inner tubes	33.3
Rubber boots and shoes	36.5
Rubber goods, other than boots, shoes, tires, and inner tubes	36.6
Machinery, not including transportation equipment:	
Agricultural implements	32.9
Electrical machinery, apparatus, and supplies	30.6
Engines, turbines, tractors, and water wheels	33.0
Cash registers, adding machines, and calculating machines	29.6
Foundry and machine-shop products	31.1
Machine tools	30.4
Textile machinery and parts	24.4
Typewriters and supplies	23.7
Radio	38.5
Railroad repair shops:	
Electric railroad repair shops	45.3
Steam railroad repair shops	36.5
Average (89 industries)	[1] 37.3
Nonmanufacturing	
Anthracite mining	31.0
Bituminous coal mining	24.7
Metalliferous mining	39.9
Quarrying and nonmetallic mining	39.0
Production of crude petroleum	52.5
Telephone and telegraph	40.0
Power and light	45.9
Electric-railroad and motor-bus operation and maintenance	49.5
Wholesale trade	47.8
Retail trade	44.3
Hotels	51.6
Canning and preserving	43.6
Laundries	43.8
Dyeing and cleaning	46.8
Grand average, all industries	[1] 41.1

[1] Weighted average man-hours, in which the separate industries are weighted according to their importance in the combined total.

Hours and Earnings in the Boot and Shoe Industry, 1932

WAGE earners in the boot and shoe industry in the United States earned an average of 41.2 cents per hour in 1932, or 19.2 per cent less than the average of 51 cents in 1930. Their average full-time hours per week were 48.9 in 1930 and 1932 and average full-time earnings per week were $24.94 in 1930 and $20.15 in 1932. These averages are the results of studies of hours and earnings in the industry in those years by the Bureau of Labor Statistics.

The 1932 averages were computed from individual hours and earnings of 28,046 males and 21,620 females in 164 representative boot and shoe factories in the 16 States in which the industry is of importance in quantity of production and number of wage earners employed. According to the 1929 Census of Manufactures, approximately 97 per cent of the wage earners in the industry are employed in the 16 States, and the number included in the study in 1932 is approximately 25 per cent of the wage earners in those States. The individual hours and earnings, except for a few factories, were collected directly from the records of the factories included in the study for a representative pay-roll period in January and February and, therefore, are fairly representative of conditions in those months.

Studies of the industry were also made by the bureau in each of the years from 1910 to 1914 and in the even numbered years from 1914 to 1930. Summaries of average hours and earnings for each year studied and index numbers of such averages, with the 1913 average as the base or 100 per cent, are presented in Table 1. The 1932 figures will be published later in more detail in bulletin form. In making studies from year to year it is the policy of the bureau to cover as nearly as possible in the current study the same factories as were covered in the preceding year. When for any reason a factory is lost, one or more factories in the same general locality are substituted for it, to keep the figures representative and comparable one year with another.

The factories included were engaged mainly in the manufacture of shoes for men, women, misses and girls, boys and youths, and children, by the Goodyear welt, McKay, turn, or cement method. No data were taken from any establishment of which the principal product was nailed, pegged or stitchdown shoes, or specialties such as slippers, leggings, felt or rubber footwear, tennis or other athletic shoes, nor were data included for company officials, the office force, superintendents, nonworking foremen, power-house employees, watchmen, guards, teamsters, or chauffeurs.

Trend of Hours and Earnings, 1910 to 1932

THE averages in the table for the years 1910 to 1914 are for wage earners in selected occupations only and are directly comparable one year with another. Those for the even years 1914 to 1932 are for wage earners in all occupations in the industry and are also comparable one year with another. Averages for wage earners in selected occupations are not comparable with those for wage earners in all occupations.

Index numbers are given in the table for the purpose of furnishing comparable figures, one year with another, over the entire period from 1910 to 1932. The index for any year 1910 to 1914 for selected occupations is the per cent that the average for that year is of the average for 1913. The index for any year from 1914 to 1932 for all occupations in the industry was computed by increasing or decreasing the 1914 index for the wage earners in the selected occupations in proportion to the increase or decrease in the average for each year as compared with the average for all occupations in 1914.

Average full-time hours per week decreased from an index of 102.7 in 1910 to 88.2 in 1920, increased to 88.4 in 1922, to 88.9 in 1924 and 1926, and to 89.2 in 1928, and decreased to 88.8 in 1930 and 1932. The peak of earnings came in 1920 when the index of earnings per hour was 232.0 and the index of full-time earnings per week was 203.7. The indexes of full-time earnings per week did not increase or decrease in the same proportion as did the indexes for earnings per hour, because of the change from year to year in the full-time hours per week.

TABLE 1.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS, IN THE BOOT AND SHOE INDUSTRY, 1910 TO 1932

Item	Number of establishments	Number of wage earners	Average			Index numbers (1913=100)		
			Full-time hours per week	Earnings per hour	Full-time earnings per week	Full-time hours per week	Earnings per hour	Full-time earnings per week
Selected occupations only:								
1910	60	10,581	56.5	$0.286	$16.07	102.7	92.0	94.1
1911	81	15,028	56.3	.292	16.37	102.4	93.9	95.8
1912	81	19,405	55.5	.288	15.91	100.9	92.6	93.2
1913	88	19,911	55.0	.311	17.08	100.0	100.0	100.0
1914[1]	91	18,567	54.6	.314	17.11	99.3	101.0	100.2
All occupations:								
1914[1]	91	49,376	54.7	.243	13.26			
1916	136	60.692	54.6	.259	14.11	99.1	107.5	106.6
1918	143	58,321	52.3	.336	17.54	94.9	139.7	132.5
1920	117	51,247	48.6	.559	26.97	88.2	232.0	203.7
1922	104	47,361	48.7	.501	24.45	88.4	207.9	184.7
1924	106	45,460	49.0	.516	25.28	88.9	214.1	190.9
1926	154	52,697	49.0	.528	25.87	88.9	219.1	195.4
1928	157	48,658	49.1	.530	26.02	89.2	220.3	196.6
1930	161	55,187	48.9	.510	24.94	88.8	212.0	188.5
1932	164	49,666	48.9	.412	20.15	88.8	171.2	152.3

[1] 2 sets of averages are shown for this year—1 for selected occupations and the other for all occupations in the industry. The 1910 to 1914 averages for selected occupations are comparable 1 year with another, as are those for all occupations 1 year with another from 1914 to 1932.

Hours and Earnings, 1930 and 1932, by Occupation and Sex

TABLE 2 shows 1930 and 1932 average days, full-time and actual hours and earnings in one week, the per cent of full time actually worked in the week, and average earnings per hour, by departments, for the wage earners of each sex in each of the important occupations found in the study of the industry; for a group of "other employees" which includes a number of occupations, each too few in number of wage earners to warrant occupational tabulation; and for a combination of all occupations in the industry.

The figures in the table cover 82 occupations and the group of other employees, including 37 in which data are shown for males only, 7

for females only, and 38 in which data are shown for each sex. Figures are also shown for each sex separately in the group of other employees.

Males and females in all occupations combined, as shown at the end of the table, for the industry as a whole, worked an average of 5.4 days in the week covered in the study in 1930 and 5.3 days in the week covered in 1932. In computing these averages each full day or part of a day that a wage earner did any work in the week was counted as a day. Their full-time hours per week averaged 48.9 in 1930 and 1932. They actually worked an average of 42.4 hours in one week in 1930 and 40.4 in 1932—86.7 per cent of full time in 1930 and 82.6 per cent in 1932; thus, the hours actually worked in the week were 13.3 per cent less than full time in 1930 and 17.4 per cent less than full time in 1932. These workers earned an average of 51.0 cents per hour in 1930 and 41.2 cents in 1932. Actual earnings in one week averaged $21.62 in 1930 and $16.62 in 1932, a decrease of $5 or 23.1 per cent.

The average hours actually worked in one week by males ranged in 1930 from 39.1 for shoe cleaners to 47.2 for hand heel builders, and folders, and in 1932 from 32.3 for machine cutters of top and heel lifts, to 49 for folders. Those worked by females in 1930 ranged from 35.4 for machine cutters of vamps and whole shoes, to 45.1 for assemblers for pulling-over machine, and in 1932 from 31.3 for hand cutters of linings to 48.9 for roughers for cement.

The average earnings per hour of males ranged in 1930 from 35.2 cents for stampers to $1.058 for turn sewers and in 1932 from 28.7 to 75.0 cents for the same occupations, respectively; those of females ranged in 1930 from 30 cents for shoe cleaners to 46.5 cents for vampers and in 1932 from 23.5 cents for roughers for cement to 44.8 cents for machine cutters of vamps and whole shoes.

The average amount actually earned in one week by males ranged in 1930 from $15.63 for stampers to $48.83 for folders and in 1932 from $12.70 for table workers to $33.42 for folders; by females in 1930 from $11.85 for shoe cleaners to $20.37 for assemblers for pulling-over machine and in 1932 from $9.27 for hand cutters of linings to $19.01 for machine cutters of vamps and whole shoes.

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Cutting department										
Cutters, vamp and whole shoe, hand, male	1930	127	2,226	5.3	48.7	42.0	86.2	$0.796	$38.77	$33.46
	1932	125	2,032	5.3	48.9	40.3	82.4	.634	31.00	25.59
Cutters, vamp and whole shoe, machine, male	1930	58	958	5.2	49.4	42.5	86.0	.663	32.75	28.19
	1932	69	861	4.9	49.2	37.8	76.8	.563	27.70	21.29
Cutters, vamp and whole shoe, machine, female	1930	8	30	4.8	49.9	35.4	70.9	.506	25.25	17.92
	1932	8	39	5.3	49.9	42.5	85.2	.448	22.36	19.01
Cutters, trimmings, hand, male	1930	101	671	5.3	48.9	41.2	84.3	.509	24.89	20.99
	1932	100	531	5.2	49.4	39.8	80.6	.420	20.75	16.74

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Cutting department—Continued										
Cutters, trimmings, hand, female	1930	10	22	5.3	49.0	40.7	83.1	$0.405	$19.85	$16.49
	1932	6	12	5.8	49.9	37.9	76.0	.291	14.52	11.04
Cutters, trimmings, machine, male	1930	50	225	5.4	50.3	44.2	87.9	.467	23.49	20.62
	1932	68	235	5.0	48.6	38.6	79.4	.407	19.78	15.70
Cutters, trimmings, machine, female	1930	21	87	4.8	49.0	37.5	76.5	.411	20.14	15.43
	1932	12	41	5.1	49.7	40.8	82.1	.316	15.71	12.88
Skivers, upper, male	1930	36	104	5.4	48.3	44.1	91.3	.651	31.44	28.73
	1932	36	63	5.4	48.4	41.5	85.7	.537	25.99	22.31
Skivers, upper, female	1930	121	664	5.2	48.8	40.8	83.6	.447	21.81	18.22
	1932	129	672	5.2	48.9	39.7	81.2	.354	17.31	14.06
Cutters, linings, hand, male	1930	101	466	5.2	48.6	40.7	83.7	.630	30.62	25.62
	1932	101	469	5.2	48.5	40.1	82.7	.514	24.93	20.63
Cutters, linings, hand, female	1932	5	16	5.4	49.5	31.3	63.2	.297	14.70	9.27
Cutters, linings, machine, male	1930	57	350	5.3	49.2	44.7	90.9	.481	23.67	21.50
	1932	71	322	5.2	49.3	41.3	83.8	.423	20.85	17.45
Cutters, linings, machine, female	1930	6	21	4.9	49.7	39.1	78.7	.394	19.58	15.39
	1932	6	16	5.4	49.9	44.3	88.8	.329	16.32	14.48
Sole-leather department										
Cutters, outsole, male	1930	48	293	5.5	48.6	44.6	91.8	.744	36.16	33.16
	1932	47	218	4.8	48.8	36.2	74.2	.668	32.60	24.17
Cutters, insole, male	1930	49	353	5.5	49.0	45.4	92.7	.608	29.79	27.57
	1932	46	293	4.9	49.0	36.1	73.7	.571	27.98	20.60
Rounders, outsole and insole, male	1930	96	187	5.4	49.3	42.9	87.0	.622	30.66	26.65
	1932	102	171	5.3	49.5	41.3	83.4	.509	25.20	21.01
Channelers, outsole and insole, male	1930	98	198	5.5	49.3	42.6	86.4	.686	33.82	29.22
	1932	95	164	5.3	49.3	39.8	80.7	.550	27.12	21.89
Cutters, top and heel lifts, machine, male	1930	25	211	5.0	48.8	40.6	83.2	.554	27.04	22.52
	1932	30	189	4.0	48.5	32.3	66.6	.494	23.96	15.97
Heel builders, hand, male	1930	8	29	5.9	48.3	47.2	97.7	.541	26.13	25.53
	1932	5	8	5.4	50.6	42.4	83.8	.321	16.24	13.61
Heel builders, hand, female	1930	9	44	5.0	48.8	40.7	83.4	.424	20.69	17.26
	1932	7	14	5.1	49.3	39.5	80.1	.348	17.16	13.73
Heel builders, machine, male	1930	26	66	5.2	50.0	43.8	87.6	.483	24.15	21.16
	1932	19	69	3.9	49.2	33.0	67.1	.469	23.07	15.51
Heel builders, machine, female	1930	16	138	4.9	48.8	40.4	82.8	.418	20.40	16.87
	1932	15	75	4.2	48.6	33.0	67.9	.393	19.10	12.96
Fitting and stitching department										
Stampers, linings or uppers, male	1930	18	32	5.5	50.4	44.4	88.1	.352	17.74	15.63
	1932	8	17	5.6	50.2	46.2	92.0	.287	14.41	13.23
Stampers, linings or uppers, female	1930	129	728	5.4	48.8	41.5	85.0	.382	18.64	15.83
	1932	140	703	5.3	48.7	41.0	84.2	.314	15.29	12.88
Cementers and doublers, hand and machine, male	1930	21	58	5.8	47.7	46.5	97.5	.537	25.61	24.93
	1932	8	26	5.6	46.0	45.9	99.8	.440	20.24	20.20
Cementers and doublers, hand and machine, female	1930	130	1,636	5.3	48.9	41.7	85.3	.335	16.38	13.96
	1932	140	1,638	5.3	48.9	41.6	85.1	.247	12.08	10.26
Folders, hand and machine, male	1930	10	70	5.7	44.7	47.2	105.6	1.036	46.31	48.83
	1932	7	74	5.9	44.3	49.0	110.6	.683	30.26	33.42
Folders, hand and machine, female	1930	130	1,208	5.4	48.6	41.8	86.0	.388	18.86	16.20
	1932	138	1,135	5.3	48.8	41.3	84.6	.313	15.27	12.91
Perforators, male	1930	18	41	5.7	47.8	46.2	96.7	.616	29.44	28.45
	1932	43	100	5.4	48.5	42.9	88.5	.469	22.75	20.11
Perforators, female	1930	99	272	5.2	49.1	40.3	82.1	.430	21.11	17.36
	1932	112	346	5.3	48.9	41.1	84.0	.343	16.77	14.10
Tip stitchers, male	1932	5	5	5.6	49.2	43.9	89.2	.442	21.75	19.39
Tip stitchers, female	1930	58	300	5.4	48.7	43.0	88.3	.432	21.04	18.60
	1932	62	245	5.1	48.6	37.1	76.3	.356	17.30	13.20

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Fitting and stitching department—Continued										
Closers and seamers, male	1932	9	13	5.9	46.7	37.2	79.7	$0.527	$24.61	$19.62
Closers and seamers, female	1930	122	398	5.3	49.0	41.7	85.1	.404	19.80	16.84
	1932	129	321	5.3	48.8	41.1	84.2	.331	16.15	13.58
Seam rubbers, hand and machine, male	1930	11	18	5.6	47.4	44.1	93.0	.409	19.39	18.05
	1932	10	12	5.8	47.9	41.7	87.1	.370	17.72	15.45
Seam rubbers, hand and machine, female	1930	75	159	5.4	49.4	43.1	87.2	.333	16.45	14.37
	1932	78	163	5.5	48.8	42.1	86.3	.284	13.86	11.97
Lining makers, male	1930	6	12	6.0	47.5	44.9	94.5	.716	34.01	32.16
	1932	7	20	5.9	47.3	43.1	91.1	.436	20.62	18.76
Lining makers, female	1930	137	1,075	5.3	48.8	40.4	82.8	.395	19.28	15.96
	1932	143	1,004	5.2	48.9	39.1	80.0	.310	15.16	12.11
Closers on, female	1930	25	57	5.2	49.9	41.6	83.4	.366	18.26	15.23
	1932	10	13	5.5	49.8	41.0	82.3	.340	16.93	13.94
Top stitchers, male	1930	32	113	5.6	47.2	44.2	93.6	.787	37.15	34.80
	1932	34	115	5.6	47.2	41.3	87.5	.603	28.46	24.87
Top stitchers, female	1930	132	1,648	5.3	49.1	41.5	84.5	.419	20.57	17.41
	1932	137	1,449	5.2	49.0	40.5	82.7	.338	16.56	13.68
Binders, male	1930	11	38	5.8	46.9	44.6	95.1	.895	41.98	39.97
	1932	15	31	5.8	46.4	43.7	94.2	.670	31.09	29.29
Binders, female	1930	105	615	5.4	48.9	42.5	86.9	.439	21.49	18.67
	1932	97	496	5.5	49.0	43.3	88.4	.358	17.54	15.50
Buttonhole makers, female	1930	34	42	5.5	49.4	43.7	88.5	.390	19.27	17.03
	1932	11	12	5.6	50.2	45.5	90.6	.331	16.62	15.06
Button fasteners, female	1930	50	117	5.5	48.7	43.2	88.7	.334	16.27	14.43
	1932	60	105	5.5	48.5	42.7	88.0	.325	15.76	13.89
Eyeleters, male	1930	46	79	5.5	48.7	44.3	91.0	.503	24.50	22.28
	1932	42	70	5.2	48.8	39.2	80.3	.451	22.01	17.69
Eyeleters, female	1930	71	135	5.4	49.4	41.9	84.8	.408	20.16	17.10
	1932	87	133	5.2	49.1	39.9	81.3	.333	16.35	13.30
Vampers, male	1930	64	347	5.5	48.2	42.1	87.3	.672	32.39	28.28
	1932	67	283	5.5	48.2	41.6	86.3	.569	27.43	23.68
Vampers, female	1930	125	1,164	5.3	49.1	41.7	84.9	.465	22.83	19.42
	1932	131	1,097	5.1	49.0	39.2	80.0	.355	17.40	13.91
Barrers, female	1930	36	66	5.5	49.5	43.6	88.1	.395	19.55	17.22
	1932	46	75	5.2	49.4	40.1	81.2	.326	16.10	13.06
Tongue stitchers, female	1930	78	267	5.3	49.0	41.2	84.1	.371	18.18	15.26
	1932	77	247	5.1	49.0	38.4	78.4	.297	14.55	11.38
Fancy stitchers, male	1930	32	165	5.8	46.7	45.3	97.0	.834	38.95	37.84
	1932	34	176	5.6	46.9	42.7	91.0	.592	27.76	25.30
Fancy stitchers, female	1930	133	3,265	5.3	49.1	41.5	84.5	.400	19.64	16.62
	1932	139	3,486	5.3	48.9	41.8	85.5	.301	14.72	12.59
Back-stay stitchers, female	1930	82	317	5.2	49.1	41.6	84.7	.393	19.30	16.34
	1932	77	223	5.2	49.0	38.8	79.2	.326	15.97	12.64
Table workers, male	1932	6	8	5.6	47.3	39.2	82.9	.324	15.33	12.70
Table workers, female	1930	113	972	5.4	48.4	41.2	85.1	.314	15.20	12.94
	1932	128	1,007	5.3	48.4	41.5	85.7	.248	12.00	10.29
Lacers, before lasting, male	1932	13	17	5.5	48.0	43.1	89.8	.351	16.85	15.10
Lacers, before lasting, female	1930	87	152	5.2	49.1	42.1	85.7	.355	17.43	14.96
	1932	96	143	5.1	49.1	39.5	80.4	.291	14.29	11.52
Lasting department										
Last pickers and sorters, male	1930	112	308	5.5	49.0	43.5	88.8	.465	22.79	20.19
	1932	117	248	5.4	49.0	42.6	86.9	.403	19.75	17.16
Assemblers for pulling-over machine, male	1930	125	624	5.3	49.0	39.8	81.2	.568	27.83	22.61
	1932	138	574	5.3	49.1	38.4	78.2	.471	23.13	18.09
Assemblers for pulling-over machine, female	1930	9	32	5.6	49.4	45.1	91.3	.452	22.33	20.37
	1932	16	43	5.3	48.9	41.4	84.7	.339	16.58	14.05
Pullers over, hand, male	1930	9	23	5.7	49.3	39.3	79.7	.683	33.67	26.83
	1932	8	22	5.1	49.7	41.6	83.7	.570	28.33	23.71
Pullers over, machine, male	1930	130	603	5.3	49.1	41.0	83.5	.715	35.11	29.30
	1932	140	598	5.3	49.1	39.5	80.4	.576	28.28	22.77
Side lasters, hand, male	1930	23	148	5.4	49.3	39.6	80.3	.637	31.40	25.23
	1932	17	105	5.0	46.1	36.9	80.0	.559	25.77	20.66

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Lasting department—Contd.										
Side lasters, machine, male	1930	117	736	5.4	49.0	41.9	85.5	$0.663	$32.49	$27.78
	1932	124	757	5.3	48.6	40.4	83.1	.529	25.71	21.35
Bed-machine operators, male	1930	130	1,478	5.4	49.1	42.1	85.7	.657	32.26	27.71
	1932	132	1,355	5.3	49.1	40.4	82.3	.515	25.29	20.78
Hand-method lasting machine operators, male	1930	19	74	5.5	49.4	40.0	81.0	.673	33.25	26.93
	1932	18	90	5.4	50.1	41.9	83.6	.546	27.35	22.89
Turn lasters, hand, male	1930	24	789	5.5	46.5	46.0	98.9	.780	36.27	35.90
	1932	18	541	5.2	46.4	43.5	93.8	.546	25.33	23.79
Turn lasters, machine, male	1932	3	7	4.4	47.5	34.3	72.2	.684	32.49	23.46
Turn sewers, male	1930	15	38	5.6	48.0	44.8	93.3	1.058	50.78	47.39
	1932	16	35	4.7	46.8	34.6	73.9	.750	35.10	25.94
Tack pullers, male	1930	103	315	5.3	49.0	41.0	83.7	.415	20.34	17.05
	1932	114	317	5.3	49.2	38.6	78.5	.352	17.32	13.57
Tack pullers, female	1932	7	12	5.3	49.2	36.7	74.6	.286	14.07	10.52
Bottoming department										
Goodyear welters, male	1930	92	377	5.4	49.0	40.1	81.8	.820	40.18	32.88
	1932	92	336	5.1	48.9	35.7	73.0	.668	32.67	23.87
Welt beaters and slashers, male	1930	72	152	5.3	49.1	40.6	82.7	.524	25.73	21.27
	1932	82	134	5.2	49.1	36.6	74.5	.404	19.84	14.76
Bottom fillers, hand and machine, male	1930	95	198	5.4	49.3	41.7	84.6	.445	21.94	18.56
	1932	103	181	5.3	49.4	40.5	82.0	.356	17.59	14.45
Bottom fillers, hand and machine, female	1932	7	14	5.6	49.5	36.2	73.1	.280	13.86	10.14
Roughers for cement, male	1930	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1932	35	92	5.4	49.7	44.2	88.9	.400	19.88	17.66
Roughers for cement, female	1930	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1932	4	6	5.7	48.8	48.9	100.2	.235	11.47	11.49
Sole cementers, hand and machine, male	1930	76	176	5.3	49.2	42.1	85.6	.425	20.91	17.90
	1932	89	184	5.3	49.3	39.7	80.5	.321	15.83	12.75
Sole cementers, hand and machine, female	1930	17	51	5.3	49.1	42.2	85.9	.368	18.07	15.55
	1932	40	121	5.5	49.0	42.1	85.9	.276	13.52	11.60
Sole layers, hand and machine, male	1930	114	280	5.4	49.2	41.0	83.3	.594	29.22	24.38
	1932	117	250	5.2	49.1	37.3	76.0	.492	24.16	18.35
Rough rounders, male	1930	88	278	5.3	49.1	40.2	81.9	.751	36.87	30.16
	1932	90	228	5.2	49.2	35.7	72.6	.602	29.62	21.51
Channel openers and closers, male	1930	98	336	5.4	48.9	41.8	85.5	.506	24.74	21.14
	1932	95	240	5.3	49.2	38.2	77.6	.369	18.15	14.11
Channel openers and closers, female	1930	28	65	5.3	48.9	41.5	84.9	.417	20.39	17.29
	1932	30	58	5.1	48.8	36.2	74.2	.374	18.25	13.53
Goodyear stitchers, male	1930	100	576	5.3	49.1	41.2	83.9	.727	35.70	29.99
	1932	95	486	5.2	49.0	36.6	74.7	.585	28.67	21.43
McKay sewers, male	1930	54	151	5.5	49.6	42.8	86.3	.684	33.93	29.28
	1932	46	128	5.5	49.4	43.6	88.3	.550	27.17	23.94
Sole attachers, cement, male	1930	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1932	39	88	5.7	49.6	46.8	94.4	.495	24.55	23.16
Stitch separators, male	1930	68	168	5.4	49.1	42.2	85.9	.491	24.11	20.73
	1932	48	110	5.3	48.9	36.7	75.1	.413	20.20	15.18
Levelers, male	1930	124	390	5.5	49.1	42.3	86.2	.586	28.77	24.77
	1932	128	337	5.3	49.2	40.3	81.9	.466	22.93	18.78
Heelers, leather, male	1930	99	262	5.4	49.2	41.5	84.3	.689	33.90	28.62
	1932	105	258	5.2	49.2	38.1	77.4	.570	28.04	21.69
Heelers, wood, male	1930	87	891	5.5	48.4	41.7	86.2	.746	36.11	31.11
	1932	85	786	5.4	48.5	41.5	85.6	.524	25.41	21.77
Heel trimmers or shavers, male	1930	101	232	5.5	49.2	42.8	87.0	.670	32.96	28.70
	1932	103	195	5.2	49.3	38.0	77.1	.556	27.42	21.11
Heel breasters, male	1930	68	132	5.4	48.2	41.7	86.5	.586	28.25	24.44
	1932	64	95	5.3	49.6	39.0	78.6	.449	22.27	17.54
Edge trimmers, male	1930	140	895	5.4	49.1	41.7	84.9	.722	35.45	30.11
	1932	146	813	5.3	49.1	39.3	80.0	.572	28.09	22.47
Sluggers, male	1930	39	60	5.4	48.8	41.9	85.9	.550	26.84	23.07
	1932	43	54	5.4	49.0	38.9	79.4	.408	19.99	15.89

[1] Included with "other employees" in 1930.

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY OCCUPATION AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Finishing department										
Buffers, male	1930	126	364	5.5	49.1	42.4	86.4	$0.620	30.44	$26.29
	1932	134	295	5.3	49.3	39.6	80.3	.474	23.37	18.77
Naumkeag operators, male	1930	71	122	5.4	48.8	41.1	84.2	.695	33.92	28.55
	1932	83	141	5.5	48.7	40.7	83.6	.549	26.74	22.37
Edge setters, male	1930	140	794	5.4	49.0	41.6	84.9	.706	34.59	29.35
	1932	145	744	5.3	49.0	39.3	80.2	.551	27.00	21.66
Heel scourers, male	1930	101	352	5.4	49.2	42.3	86.0	.567	27.90	23.95
	1932	106	288	5.2	50.0	38.2	76.4	.463	23.15	17.68
Heel burnishers, male	1930	104	308	5.4	49.3	41.1	83.4	.527	25.98	21.66
	1932	100	233	5.2	49.2	38.6	78.5	.416	20.47	16.04
Bottom stainers, male	1930	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
	1932	66	153	5.4	48.7	38.6	79.3	.392	19.09	15.16
Bottom stainers, female	1930	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
	1932	73	250	5.3	48.9	41.6	85.1	.291	14.23	12.08
Bottom finishers, male	1930	123	491	5.3	48.8	41.0	84.0	.576	28.11	23.59
	1932	133	387	5.3	49.0	40.4	82.4	.437	21.41	17.64
Bottom finishers, female	1930	13	60	5.5	49.5	43.2	87.3	.375	18.56	16.20
	1932	3	8	5.3	49.1	43.5	88.6	.326	16.01	14.21
Brushers, male	1930	69	175	5.4	48.9	42.6	87.1	.436	21.32	18.58
	1932	74	185	5.3	49.2	39.8	80.9	.382	18.79	15.21
Brushers, female	1930	22	42	5.4	49.1	44.7	91.0	.342	16.79	15.28
	1932	21	49	5.1	48.6	37.6	77.4	.269	13.07	10.12
Shoe cleaners, male	1930	47	153	5.0	48.7	39.1	80.3	.441	21.48	17.25
	1932	48	105	5.4	48.0	40.2	83.8	.356	17.09	14.32
Shoe cleaners, female	1930	47	145	5.0	49.0	39.5	80.6	.300	14.70	11.85
	1932	52	157	5.4	48.4	42.5	87.8	.247	11.95	10.52
Last pullers, male	1930	127	276	5.5	49.2	42.3	86.0	.501	24.65	21.18
	1932	131	236	5.3	49.2	40.5	82.3	.396	19.48	16.04
Treers, male	1930	125	1,210	5.4	49.1	43.0	87.6	.563	27.64	24.23
	1932	132	1,056	5.5	49.3	42.5	86.2	.433	21.35	18.43
Treers, female	1930	42	280	5.4	48.6	43.2	88.9	.380	18.47	16.42
	1932	41	249	5.3	48.7	39.3	80.7	.305	14.85	12.00
Repairers, male	1930	50	142	5.6	48.2	44.5	92.3	.606	29.21	27.01
	1932	40	65	5.2	48.2	39.5	82.0	.524	25.26	20.70
Repairers, female	1930	123	863	5.4	49.2	43.1	87.6	.383	18.84	16.50
	1932	131	590	5.5	48.8	43.3	88.7	.333	16.25	14.44
Dressers, male	1932	18	26	5.7	49.2	46.7	94.9	.390	19.19	18.25
Dressers, female	1930	88	392	5.4	48.9	43.5	89.0	.355	17.36	15.45
	1932	98	402	5.3	49.1	40.7	82.9	.308	15.12	12.55
Sock liners, male	1930	11	18	5.3	48.4	43.6	90.1	.463	22.41	20.21
	1932	10	14	5.6	49.8	45.1	90.6	.333	16.58	15.02
Sock liners, female	1930	124	363	5.4	48.8	41.7	85.5	.374	18.25	15.60
	1932	133	308	5.4	48.7	41.2	84.6	.314	15.29	12.93
Lacers before packing, female	1930	95	214	5.4	49.3	42.6	86.4	.331	16.32	14.09
	1932	103	199	5.4	48.9	40.9	83.6	.266	13.01	10.87
Packers, male	1930	26	71	5.4	48.8	46.4	95.1	.441	21.52	20.46
	1932	14	29	5.5	49.1	41.3	84.1	.459	22.54	18.96
Packers, female	1930	132	457	5.4	48.8	43.0	88.1	.379	18.50	16.31
	1932	138	409	5.4	48.8	42.3	86.7	.315	15.37	13.31
Other employees, male	1930	161	9,073	5.5	48.8	44.0	90.2	.500	24.40	21.97
	1932	164	7,853	5.2	48.9	40.5	82.8	.437	21.37	17.73
Other employees, female	1930	151	5,032	5.4	48.9	42.9	87.7	.351	17.16	15.04
	1932	152	3,806	5.2	48.9	40.3	82.4	.306	14.96	12.34
All occupations, male	1930	161	31,549	5.4	48.8	42.7	87.5	.604	29.48	25.79
	1932	164	28,046	5.2	48.9	40.0	81.8	.493	24.11	19.73
All occupations, female	1930	152	23,609	5.3	48.9	42.0	85.9	.382	18.68	16.04
	1932	155	21,620	5.3	48.9	40.8	83.4	.308	15.06	12.58
All occupations, male and female	1930	161	55,158	5.4	48.9	42.4	86.7	.510	24.94	21.62
	1932	164	49,666	5.3	48.9	40.4	82.6	.412	20.15	16.62

[1] Included with "other employees" in 1930

Hours and Earnings, 1930 and 1932, by Sex and State

TABLE 3 shows for the males and females separately and for both sexes combined, by States, the average days, full time and actual hours and earnings in one week, the per cent of full time actually worked in the week, and average earnings per hour in 1930 and 1932.

Average earnings per hour of males ranged, by States, from 43.4 to 71.1 cents in 1930, and from 34.5 to 63.1 cents in 1932; those of females ranged from 26.8 to 48.3 cents in 1930 and from 21.6 to 42.1 cents in 1932. Earnings per hour of males in all States averaged 60.4 cents in 1930 and 49.3 cents in 1932, and those of females averaged 38.2 cents per hour in 1930 and 30.8 cents in 1932.

Average actual earnings of males in one week ranged from $17.84 to $30.26 in 1930, and from $14.61 to $22.96 in 1932; and those of females ranged from $11.93 to $20.22 in 1930, and from $8.85 to $14.51 in 1932. Males in all States combined earned an average of $25.79 in one week in 1930, and $19.73 in 1932, while females in all States earned an average of $16.04 in 1930, and $12.58 in 1932.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY SEX AND STATE

Sex and State	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males:										
Illinois	1930	6	1,808	5.4	48.8	42.8	87.7	$0.624	$30.45	$26.73
	1932	6	1,450	5.7	49.0	47.1	96.1	.427	20.92	20.11
Kentucky	1930	3	386	5.6	52.4	49.5	94.5	.434	22.74	21.46
	1932	3	343	5.4	53.0	47.4	89.4	.345	18.29	16.32
Maine	1930	7	1,277	5.8	52.9	48.2	91.1	.511	27.03	24.65
	1932	8	1,223	5.9	52.9	46.3	87.5	.447	23.65	20.69
Maryland and Virginia	1930	7	946	4.8	48.8	36.4	74.6	.490	23.91	17.84
	1932	7	848	5.6	48.9	43.4	88.8	.358	17.51	15.52
Massachusetts	1930	56	8,725	5.4	48.2	41.0	85.1	.671	32.34	27.48
	1932	59	7,663	5.6	48.3	41.2	85.3	.557	26.90	22.96
Michigan	1930	4	346	5.3	49.6	45.6	91.9	.554	27.48	25.25
	1932	4	337	4.8	49.5	37.3	75.4	.501	24.80	18.68
Minnesota	1930	4	347	5.5	50.0	45.0	90.0	.498	24.90	22.40
	1932	4	246	5.4	49.9	44.1	88.4	.417	20.81	18.37
Missouri	1930	11	3,730	5.6	49.0	45.7	89.1	.548	26.85	25.03
	1932	11	3,282	4.7	49.0	38.7	79.0	.473	23.18	18.29
New Hampshire	1930	9	1,718	5.4	49.0	40.5	82.7	.505	24.75	20.47
	1932	8	1,151	5.0	48.4	37.4	77.3	.439	21.25	16.43
New Jersey	1930	3	327	5.6	45.9	42.5	92.6	.711	32.63	30.26
	1932	3	277	4.8	46.0	32.2	70.0	.631	29.03	20.35
New York	1930	19	6,210	5.5	47.6	43.9	92.2	.666	31.70	29.26
	1932	19	5,548	5.0	47.6	37.6	79.0	.536	25.51	20.13
Ohio	1930	7	1,677	4.7	48.2	35.3	70.2	.590	28.44	20.85
	1932	7	1,617	5.1	48.1	40.2	83.6	.485	23.33	19.48
Pennsylvania	1930	12	1,873	5.6	51.1	43.9	85.9	.512	26.16	22.47
	1932	12	2,180	5.2	51.3	37.8	73.7	.408	20.93	15.44
Tennessee	1930	4	503	5.4	51.8	47.0	90.7	.440	22.79	20.68
	1932	4	481	5.0	49.4	37.9	76.7	.385	19.02	14.61
Wisconsin	1930	9	1,676	5.4	49.7	44.4	89.3	.602	29.92	26.72
	1932	9	1,400	5.5	49.9	36.8	73.7	.481	24.00	17.72
Total	1930	161	31,549	5.4	48.8	42.7	87.5	.604	29.48	25.79
	1932	164	28,046	5.2	48.9	40.0	81.8	.493	24.11	19.73
Females:										
Illinois	1930	6	1,785	5.4	49.1	44.4	90.4	.376	18.46	16.70
	1932	6	1,716	5.5	49.3	47.9	97.2	.272	13.41	13.01
Kentucky	1930	3	379	5.7	52.2	50.6	96.9	.273	14.25	13.80
	1932	3	323	5.4	52.7	47.1	89.4	.216	11.38	10.16

TABLE 3.—AVERAGE HOURS AND EARNINGS IN THE BOOT AND SHOE INDUSTRY, 1930 AND 1932, BY SEX AND STATE—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Females—Continued.										
Maine	1930	7	1,130	5.5	53.1	46.0	86.6	$0.360	$19.12	$16.56
	1932	8	1,004	5.7	53.1	46.2	87.0	.299	15.88	13.80
Maryland and Virginia	1930	7	605	4.7	48.8	38.3	78.5	.311	15.18	11.93
	1932	7	580	5.6	48.9	46.9	95.9	.218	10.66	10.20
Massachusetts	1930	48	6,197	5.4	47.9	39.6	82.7	.446	21.36	17.66
	1932	51	5,710	5.5	47.9	41.0	85.6	.354	16.96	14.51
Michigan	1930	4	257	5.1	49.6	43.9	88.5	.318	15.77	13.95
	1932	4	207	4.9	49.5	36.3	73.3	.299	14.80	10.86
Minnesota	1930	4	285	5.2	49.9	41.6	83.4	.321	16.02	13.35
	1932	4	198	5.4	49.8	45.2	90.8	.279	13.89	12.59
Missouri	1930	11	2,824	5.4	49.2	45.0	91.5	.321	15.79	14.44
	1932	11	2,524	4.9	49.2	40.2	81.7	.273	13.43	10.99
New Hampshire	1930	9	1,437	5.2	49.1	38.0	77.4	.349	17.14	13.27
	1932	8	971	4.9	48.4	36.7	75.8	.291	14.08	10.70
New Jersey	1930	3	189	5.6	46.5	41.8	89.9	.483	22.46	20.22
	1932	3	151	4.8	46.5	31.1	66.9	.421	19.58	13.07
New York	1930	19	3,864	5.4	48.4	43.1	89.0	.411	19.89	17.71
	1932	19	3,655	5.0	48.4	38.1	78.7	.340	16.46	12.95
Ohio	1930	7	1,597	4.8	48.0	36.3	75.6	.361	17.33	13.12
	1932	7	1,550	5.2	47.9	41.3	86.2	.292	13.99	12.06
Pennsylvania	1930	11	1,146	5.5	50.0	43.8	87.6	.331	16.55	14.50
	1932	11	1,260	5.2	50.6	41.8	82.6	.248	12.55	10.35
Tennessee	1930	4	456	5.4	51.4	45.7	88.9	.268	13.78	12.24
	1932	4	437	4.8	48.9	35.6	72.8	.249	12.18	8.85
Wisconsin	1930	9	1,458	5.2	49.1	43.2	88.0	.409	20.08	17.66
	1932	9	1,334	5.4	49.2	35.6	72.4	.336	16.53	11.96
Total	1930	152	23,609	5.3	48.9	42.0	85.9	.382	18.68	16.04
	1932	155	21,620	5.3	48.9	40.8	83.4	.308	15.06	12.58
Males and females:										
Illinois	1930	6	3,593	5.4	49.0	43.6	89.0	.499	24.45	21.75
	1932	6	3,166	5.6	49.2	47.5	96.5	.342	16.83	16.26
Kentucky	1930	3	765	5.7	52.3	50.0	95.6	.353	18.46	17.66
	1932	3	666	5.4	52.8	47.2	89.4	.282	14.89	13.33
Maine	1930	7	2,407	5.6	53.0	47.2	89.1	.442	23.43	20.85
	1932	8	2,227	5.8	53.0	46.3	87.4	.380	20.14	17.59
Maryland and Virginia	1930	7	1,551	4.8	48.8	37.1	76.0	.418	20.40	15.54
	1932	7	1,428	5.6	48.9	44.8	91.6	.298	14.57	13.36
Massachusetts	1930	56	14,992	5.4	48.1	40.4	84.0	.579	27.85	23.40
	1932	59	13,373	5.5	48.1	41.1	85.4	.470	22.61	19.35
Michigan	1930	4	603	5.2	49.6	44.9	90.5	.456	22.62	20.44
	1932	4	544	4.8	49.5	36.9	74.5	.426	21.09	15.70
Minnesota	1930	4	632	5.3	49.9	43.4	87.0	.422	21.06	18.32
	1932	4	444	5.4	49.9	44.6	89.4	.354	17.66	15.79
Missouri	1930	11	6,554	5.5	49.1	45.4	92.5	.451	22.14	20.47
	1932	11	5,806	4.8	49.1	39.3	80.0	.384	18.85	15.12
New Hampshire	1930	9	3,155	5.3	49.0	39.4	80.4	.437	21.41	17.19
	1932	8	2,122	5.0	48.4	37.1	76.7	.372	18.00	13.81
New Jersey	1930	3	516	5.6	46.1	42.3	91.8	.628	28.95	26.58
	1932	3	428	4.8	46.2	31.8	68.8	.559	25.83	17.79
New York	1930	19	10,074	5.5	47.9	43.6	91.0	.569	27.26	24.83
	1932	19	9,203	5.0	47.9	37.8	78.9	.457	21.89	17.28
Ohio	1930	7	3,274	4.8	48.1	35.8	74.4	.477	22.94	17.08
	1932	7	3,167	5.1	48.0	40.7	84.8	.389	18.67	15.85
Pennsylvania	1930	12	3,019	5.6	50.7	43.9	86.6	.443	22.46	19.44
	1932	12	3,440	5.2	51.0	39.2	76.9	.346	17.65	13.57
Tennessee	1930	4	959	5.4	51.6	46.4	89.9	.359	18.52	16.67
	1932	4	918	4.9	49.2	36.8	74.8	.322	15.84	11.87
Wisconsin	1930	9	3,134	5.3	49.4	43.8	88.7	.513	25.34	22.51
	1932	9	2,734	5.4	49.5	36.2	73.1	.412	20.39	14.91
Total	1930	161	55,158	5.4	48.9	42.4	86.7	.510	24.94	21.62
	1932	164	49,666	5.3	48.9	40.4	82.6	.412	20.15	16.62

Hours and Earnings in Selected Occupations in 1932

TABLE 4 presents for males in four and for females in four other representative occupations in each State in 1932, data showing average days, full-time and actual hours and earnings in one week, per cent of full time actually worked in the week, and average earnings per hour. The wage earners in these occupations represent 20 per cent of the total of 49,666 covered in the study of the industry in that year.

Average hours actually worked in one week in 1932 by hand cutters of vamps and whole shoes, male, the first occupation in the table, ranged, by States, from a low of 21.2 to a high of 51.7, or 47.4 and 98.3 per cent of full time, respectively. Average earnings per hour ranged, by States, from 46.2 to 79.9 cents; for all States combined the average was 63.4 cents. Average actual earnings in one week ranged from $16.35 to $28.55, and for all States combined the average was $25.59; in the State in which actual earnings averaged only $16.35 the wage earners worked only 21.2 hours during the week, or 47.4 per cent of full time.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN EIGHT OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY, 1932, BY SEX AND STATE

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Cutters, vamp and whole shoe, hand, male:									
Illinois	4	128	5.8	48.7	49.5	101.6	$0.553	$26.93	$27.25
Kentucky	3	25	5.8	52.6	51.7	98.3	.462	24.30	23.88
Maine	7	110	5.9	53.0	48.4	91.3	.533	28.25	25.79
Maryland and Virginia	4	61	5.8	48.9	50.8	103.9	.477	23.33	24.24
Massachusetts	42	709	5.4	48.5	40.5	83.5	.695	33.71	28.18
Michigan	2	12	5.3	50.0	44.8	89.6	.508	25.40	22.78
Minnesota	3	19	5.3	48.4	42.8	88.4	.470	22.75	20.13
Missouri	8	116	4.5	48.1	35.7	74.2	.799	38.43	28.55
New Hampshire	6	56	4.9	48.5	35.6	73.4	.508	24.64	18.08
New Jersey	3	25	4.1	44.7	21.2	47.4	.772	34.51	16.35
New York	19	415	4.8	47.8	34.4	72.0	.713	34.08	24.53
Ohio	5	118	5.4	49.7	44.2	88.9	.549	27.29	24.28
Pennsylvania	9	129	5.2	51.1	43.7	85.5	.526	26.88	22.95
Tennessee	2	4	5.8	50.0	44.3	88.6	.543	27.15	24.02
Wisconsin	8	105	5.4	49.8	36.7	73.7	.549	27.34	20.16
Total	125	2,032	5.3	48.9	40.3	82.4	.634	31.00	25.59
Cementers and doublers, hand and machine, female:									
Illinois	5	138	5.4	49.6	47.9	96.6	.179	8.88	8.59
Kentucky	3	35	5.4	53.8	48.0	89.2	.178	9.58	8.56
Maine	7	69	5.8	52.7	45.5	86.3	.261	13.75	11.91
Maryland and Virginia	5	46	5.7	48.6	50.0	102.9	.148	7.19	7.38
Massachusetts	48	384	5.5	47.9	40.9	85.4	.287	13.75	11.73
Michigan	2	5	5.8	49.5	41.3	83.4	.265	13.12	10.95
Minnesota	4	11	5.1	49.5	42.6	86.1	.242	11.98	10.32
Missouri	9	190	5.3	49.5	42.8	86.5	.231	11.43	9.88
New Hampshire	7	52	5.2	48.3	39.9	82.6	.230	11.11	9.19
New Jersey	3	21	4.6	44.8	25.6	57.1	.358	16.04	9.18
New York	19	373	5.1	48.2	39.2	81.3	.269	12.97	10.54
Ohio	7	100	5.1	47.8	40.5	84.7	.255	12.19	10.32
Pennsylvania	9	118	5.3	50.5	44.2	87.5	.209	10.55	9.24
Tennessee	4	33	5.1	48.2	36.8	76.3	.206	9.93	7.59
Wisconsin	8	63	5.6	49.5	34.8	70.3	.288	14.26	10.02
Total	140	1,638	5.3	48.9	41.6	85.1	.247	12.08	10.26

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN EIGHT OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY, 1932, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Lining makers,[1] female:									
Illinois	5	65	5.5	48.9	45.1	92.2	$0.295	$14.43	$13.32
Kentucky	3	13	4.9	52.7	41.3	78.4	.223	11.75	9.19
Maine	8	42	5.7	53.0	42.4	80.0	.287	15.21	12.15
Maryland and Virginia	5	28	5.5	49.3	45.2	91.7	.237	11.68	10.69
Massachusetts	49	288	5.7	47.9	41.1	85.8	.355	17.00	14.58
Michigan	4	9	5.1	49.4	39.0	78.9	.264	13.04	10.30
Minnesota	3	10	5.7	49.5	47.1	95.2	.258	12.77	12.16
Missouri	9	124	4.8	49.6	38.6	77.8	.260	12.90	10.04
New Hampshire	7	49	4.6	48.6	31.9	65.6	.275	13.37	8.78
New Jersey	3	8	4.8	47.2	27.3	57.8	.400	18.88	10.90
New York	19	170	4.9	48.4	34.4	71.1	.345	16.70	11.85
Ohio	7	58	5.2	47.7	40.7	85.3	.288	13.74	11.70
Pennsylvania	9	77	5.1	50.5	40.0	79.2	.245	12.37	9.81
Tennessee	4	23	4.7	48.7	33.1	68.0	.284	13.83	9.39
Wisconsin	8	40	5.5	49.1	36.0	73.3	.361	17.73	12.99
Total	143	1,004	5.2	48.9	39.1	80.0	.310	15.16	12.11
Top stitchers,[2] female:									
Illinois	5	96	5.6	49.3	50.4	102.2	.324	15.97	16.32
Kentucky	3	24	5.5	52.5	48.5	92.4	.231	12.13	11.22
Maine	8	70	5.6	53.1	44.7	84.2	.329	17.47	14.71
Maryland and Virginia	5	36	5.5	48.8	47.3	96.9	.219	10.69	10.34
Massachusetts	47	379	5.6	47.9	41.6	86.8	.382	18.30	15.87
Michigan	4	22	4.4	49.7	33.6	67.6	.327	16.25	11.00
Minnesota	3	14	5.0	50.1	41.8	83.4	.258	12.93	10.80
Missouri	9	188	4.8	49.4	38.5	77.9	.294	14.52	11.29
New Hampshire	7	90	4.5	48.5	33.0	68.0	.327	15.86	10.81
New Jersey	3	6	4.8	46.8	34.8	74.4	.464	21.72	16.15
New York	14	241	4.8	48.6	36.4	74.9	.373	18.13	13.57
Ohio	7	101	5.2	47.7	41.9	87.8	.305	14.55	12.76
Pennsylvania	9	78	5.5	50.9	44.9	88.2	.308	15.68	13.81
Tennessee	4	26	5.1	48.8	37.2	76.2	.261	12.74	9.69
Wisconsin	9	78	5.3	49.2	37.2	75.6	.378	18.60	14.08
Total	137	1,449	5.2	49.0	40.5	82.7	.338	16.56	13.68
Vampers, female:									
Illinois	5	97	5.7	49.1	49.3	100.4	.313	15.37	15.42
Kentucky	3	22	5.5	53.0	48.1	90.8	.236	12.51	11.32
Maine	8	39	5.6	51.8	41.4	79.9	.444	23.00	18.39
Maryland and Virginia	5	24	5.5	48.6	46.3	95.3	.264	12.83	12.22
Massachusetts	40	179	5.4	47.9	39.7	82.9	.447	21.41	17.77
Michigan	4	20	5.0	49.6	35.3	71.2	.329	16.32	11.61
Minnesota	4	13	5.4	49.2	43.4	88.2	.339	16.68	14.72
Missouri	9	124	4.8	49.7	37.9	76.3	.326	16.20	12.37
New Hampshire	7	72	5.1	48.5	37.6	77.5	.345	16.73	12.98
New Jersey	3	13	4.9	47.3	31.1	65.8	.488	23.08	15.17
New York	15	201	4.8	48.7	35.2	72.3	.376	18.31	13.23
Ohio	7	91	4.8	47.3	38.0	80.3	.328	15.51	12.47
Pennsylvania	8	78	5.2	51.0	44.4	87.1	.269	13.72	11.97
Tennessee	4	36	4.8	47.9	33.1	69.1	.270	12.93	8.92
Wisconsin	9	88	5.3	49.3	34.4	69.8	.393	19.37	13.51
Total	131	1,097	5.1	49.0	39.2	80.0	.355	17.40	13.91
Bed-machine operators, male:									
Illinois	5	106	5.8	49.1	49.2	100.2	.438	21.51	21.53
Kentucky	3	18	5.3	53.5	48.0	89.7	.344	18.40	16.52
Maine	8	58	5.8	52.4	44.9	85.7	.492	25.78	22.06
Maryland and Virginia	6	51	5.6	48.7	39.8	81.7	.370	18.02	14.72
Massachusetts	40	372	5.7	48.2	41.2	85.5	.596	28.73	24.56
Michigan	4	25	4.6	49.5	35.1	70.9	.448	22.18	15.71
Minnesota	3	13	5.6	50.0	45.2	90.4	.497	24.85	22.47
Missouri	8	144	4.9	49.5	40.0	80.8	.472	23.56	18.88
New Hampshire	7	74	5.1	48.4	37.8	78.1	.439	21.25	16.62
New Jersey	2	9	4.8	44.0	34.2	77.7	.734	32.30	25.10
New York	17	212	4.9	48.6	37.4	77.0	.567	27.56	21.22
Ohio	7	75	5.1	47.5	39.2	82.5	.523	24.84	20.49

[1] Including lining closers and side and top facing stitchers.
[2] Including under trimmers and barber trimmers.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS IN EIGHT OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY, 1932, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Bed-machine operators, male—Contd.									
Pennsylvania	9	66	4.9	52.3	39.7	75.9	$0.433	$22.65	$17.19
Tennessee	4	33	5.1	49.4	39.0	78.9	.401	19.81	15.64
Wisconsin	9	99	5.4	49.9	35.7	71.5	.526	26.25	18.79
Total	132	1,355	5.3	49.1	40.4	82.3	.515	25.29	20.78
Goodyear stitchers, male:									
Illinois	3	24	5.8	48.3	41.1	85.1	.706	34.10	28.99
Kentucky	1	3	5.0	53.0	44.5	84.0	.665	35.25	29.61
Maine	5	13	5.9	51.0	40.0	78.4	.517	26.37	20.66
Maryland and Virginia	5	18	5.8	48.6	43.3	89.1	.421	20.46	18.24
Massachusetts	22	118	5.6	48.0	39.1	81.5	.633	30.38	24.74
Michigan	4	8	4.9	49.4	37.7	76.3	.639	31.57	24.07
Minnesota	3	4	5.5	49.6	45.5	91.7	.588	29.16	26.75
Missouri	3	33	4.4	49.8	33.2	66.7	.459	22.86	15.27
New Hampshire	6	32	5.0	48.5	37.2	76.7	.534	25.90	19.89
New Jersey	3	6	4.8	46.8	34.3	73.3	.714	33.42	24.48
New York	15	99	4.5	48.6	30.9	63.6	.645	31.35	19.92
Ohio	6	28	4.8	47.3	35.0	74.0	.618	29.23	21.63
Pennsylvania	9	46	5.3	52.4	39.2	74.8	.502	26.30	19.67
Tennessee	4	17	5.1	49.1	37.8	77.0	.503	24.70	19.00
Wisconsin	6	37	5.6	50.1	35.2	70.3	.556	27.86	19.53
Total	95	486	5.2	49.0	36.6	74.7	.585	28.67	21.43
Treers, hand and machine, male:									
Illinois	3	44	5.6	49.6	47.9	96.6	.259	12.85	12.40
Kentucky	3	14	5.4	53.4	48.2	90.3	.330	17.62	15.88
Maine	8	70	5.9	53.1	46.1	86.8	.361	19.17	16.63
Maryland and Virginia	6	35	5.5	48.9	43.6	89.2	.307	15.01	13.37
Massachusetts	47	397	5.6	48.5	42.2	87.0	.512	24.83	21.60
Michigan	4	14	4.8	49.5	38.5	77.8	.477	23.61	18.39
Minnesota	3	8	5.8	48.5	44.0	90.7	.327	15.86	14.40
Missouri	9	115	5.3	49.5	45.0	90.9	.404	20.00	18.21
New Hampshire	7	50	5.2	48.2	41.9	86.9	.401	19.33	16.79
New Jersey	3	9	4.9	44.9	30.3	67.5	.626	28.11	18.98
New York	15	161	5.2	48.2	39.1	81.1	.419	20.20	16.38
Ohio	4	40	5.5	49.9	45.4	91.0	.405	20.21	18.38
Pennsylvania	9	50	5.5	52.1	43.0	82.5	.348	18.13	14.95
Tennessee	4	11	4.8	50.9	39.1	76.8	.308	15.68	12.06
Wisconsin	7	38	5.4	50.2	39.4	78.5	.505	25.35	19.86
Total	132	1,056	5.5	49.3	42.5	86.2	.433	21.35	18.43

Wages and Hours of Labor in the Manufacture of Woolen and Worsted Goods, 1932

THE 1932 figures in this article are the results of a recent study by the Bureau of Labor Statistics of hours and earnings, by occupations, of wage earners in the woolen and worsted goods industry in the United States. The figures cover a representative pay-roll period in January, February, March, or April, and include 38,509 wage earners of 91 representative woolen and worsted mills in 14 States in which the industry is of material importance in quantity of goods manufactured and in number of wage earners employed, according to the United States Census of Manufactures.

Similar studies were made by the bureau in each of the years from 1910 to 1914 and in the even-numbered years from 1914 to 1930. Summaries of average full-time hours per week, earnings per hour, and of full-time earnings per week for each year studied are presented in Table 1. Index numbers of the averages, with the 1913 average taken as the base or 100 per cent, are also shown in the table. The 1932 figures will be published later in more detail in bulletin form.

The 38,509 wage earners covered in 1932, as shown in the table, earned an average of 39.4 cents per hour, and their average full-time hours per week and earnings per week were 50.3 and $19.82 respectively. The 41,400 wage earners covered in 1930 earned an average of 46 cents per hour, and their full-time hours and earnings per week were 49.6 and $22.82, respectively. Average earnings per hour in 1932 were 6.6 cents less than in 1930.

The table shows averages for the wage earners in certain selected occupations only in the industry for each of the years from 1910 to 1914; for wage earners in all occupations in the industry for each of the even-numbered years from 1914 to 1930, exclusive of certain southern mills which were not included in any study prior to 1930; and for wage earners in all occupations in the industry, including the southern mills, for 1930 and 1932. It will be observed that two sets of averages are shown for 1914, one for selected occupations and the other for all occupations, and that two sets are also shown for 1930, one for the wage earners in all mills except certain southern mills in all occupations and the other for all occupations in all mills covered, including the southern mills.

The averages for the years 1910 to 1914 for selected occupations are comparable one year with another, but are not comparable with the averages for any of the years from 1914 to 1932 for all occupations. The averages for the years from 1914 to 1930 for the wage earners in all occupations in all mills except those in the southern mills are comparable one year with another, but are not comparable with the averages for selected occupations from 1910 to 1914 nor with the averages for the wage earners in all occupations in all mills, including the southern mills, for 1930 and 1932.

The index numbers are for the purpose of furnishing comparable figures one year with another over the entire period from 1910 to 1932. The index for any year from 1910 to 1914 for selected

occupations is the per cent that the average for the year is of the 1913 average. The index for any year from 1914 to 1930 for the wage earners in all occupations in all mills except the southern mills was computed by increasing or decreasing the 1914 index for selected occupations in proportion to the increase or decrease in the average for each year, 1916 to 1930, as compared with the 1914 average for all occupations. The 1932 index was computed by increasing or decreasing the 1930 index for all mills except the southern mills by the per cent that the 1932 average for all mills is more or less than the 1930 average for all mills, including the southern mills.

TABLE 1.—AVERAGE HOURS AND EARNINGS IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1910 TO 1932, WITH INDEX NUMBERS

	Year	Number of establishments	Number of wage earners	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers of—		
							Full-time hours per week	Earnings per hour	Full-time earnings per week
Selected occupations	1910	19	11,912	56.6	$0.178	$10.05	101.3	90.4	91.2
	1911	27	16,342	56.8	.179	10.18	101.6	90.9	92.4
	1912	46	17,517	55.9	.201	11.23	100.0	102.0	101.9
	1913	47	15,653	55.9	.197	11.02	100.0	100.0	100.0
	[1] 1914	48	18,333	54.9	.202	11.06	98.2	102.5	100.4
All occupations	[1] 1914	48	40,061	55.0	.182	10.03			
	1916	61	49,954	54.8	.225	12.34	97.8	126.7	123.5
	1918	63	51,928	54.3	.342	18.57	97.0	192.6	185.9
	1920	67	38,164	48.3	.628	30.33	86.2	353.7	303.6
	1922	67	39,430	48.8	.474	23.13	87.1	267.0	231.5
	1924	72	41,622	49.1	.533	26.17	87.7	300.2	262.0
	1926	112	39,970	49.3	.491	24.21	88.0	276.5	242.3
	1928	92	38,850	49.3	.514	25.34	88.0	289.5	253.7
	[2] 1930	93	38,417	49.3	.473	23.32	88.0	266.4	233.4
	[3] 1930	105	41,400	49.6	.460	22.82			
	[3] 1932	91	38,509	50.3	.394	19.82	89.2	228.2	202.7

[1] Two sets of averages are shown for 1914 for the industry, one for selected occupations and the other for all occupations in the industry. The 1910 to 1914 averages for selected occupations only are comparable one year with another, as are those for all occupations one year with another from 1914 to 1932.
[2] Not including southern mills.
[3] Including southern mills.

Hours and Earnings, 1930 and 1932, by Occupation and Sex

TABLE 2 shows average days, full-time and actual hours and earnings in one week, per cent of full time actually worked in the week, and average earnings per hour in 1930 and in 1932 for the wage earners of each sex in each of the 31 important occupations in the woolen and worsted goods industry; for a group of "other employees," which includes a number of occupations, each too few in number of wage earners to warrant occupational tabulation; and for all occupations combined.

The figures in the table are for males only in 10 occupations, for females only in 2 (burlers and menders), and for males and females in 19 occupations and in the group of other employees.

A comparison of the averages of the wage earners of each sex in each occupation in 1932 may be made with those for 1930, and a comparison of the averages for 1932 or 1930 for any occupation may also be made with the averages for any other occupation in either year.

Males and females in all occupations combined or for the industry, as shown at the end of the table, worked an average of 4.8 days in 1930 and in 1932. In arriving at the average per day for the 41,400 covered in 1930 and for the 38,509 covered in 1932, each full day or any part of a day that an employee did any work was counted as a day. Their full-time hours per week averaged 49.6 in 1930 and 50.3 in 1932, and they actually worked an average of 40.7 hours in one week in 1930 and 40.9 hours in 1932. They actually worked 82.1 per cent of full time in 1930 and 81.3 per cent in 1932, thus showing that the hours worked in the week were 17.9 per cent less than full time in 1930 and 18.7 per cent less than full time in 1932. They earned an average of 46 cents per hour in 1930 and 39.4 cents in 1932, a decrease of 6.6 cents per hour, or 14.3 per cent. Had each employee worked full time and at the same average per hour as was earned in the hours actually worked in the week, the average full-time earnings per week would have been $22.82 in 1930 and $19.82 in 1932. They actually earned an average of $18.73 in 1930 and $16.13 in 1932, a decrease of $2.60 per week, or 13.9 per cent from 1930 to 1932.

Average earnings per hour of males ranged in 1930 from 23.7 cents for doffers to 78.7 cents for hand drawers-in, and in 1932 from 24.3 cents for doffers to 67.6 cents for loom fixers; those of females ranged from 26.9 cents for doffers to 54.4 cents for weavers in 1930 and from 19.7 cents for truckers to 47.8 cents for hand tiers-in in 1932.

Average actual earnings of males in one week ranged in 1930 from $7.11 for spooler tenders to $34.23 for loom fixers, and in 1932 from $8.43 to $30.72 for the same occupations; those of females ranged from $9.81 for doffers to $20.96 for weavers in 1930 and from $9.03 for doffers to $22.85 for mule spinners in 1932.

Average hours actually worked in one week by males ranged in 1930 from 25.1 for frame spinners to 49.9 for card grinders, and in 1932 from 25.5 for spooler tenders to 57.3 for winders; those of females ranged in 1930 from 32.5 for card tenders to 47.3 for hand tiers-in, and in 1932 from 27 for wool sorters to 49 for truckers.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1930 AND 1932, BY OCCUPATION AND SEX

Occupation and sex	Year	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
						Average number	Per cent of full time			
Wool sorters, male	1930	29	503	4.1	49.3	34.6	70.2	$0.742	$36.58	$25.72
	1932	25	442	3.4	50.2	28.7	57.2	.632	31.73	18.16
Wool sorters, female	1930	3	63	4.0	49.3	33.1	67.1	.507	25.00	16.80
	1932	7	92	3.3	50.1	27.0	53.9	.362	18.14	9.80
Wool-washer tenders, male	1930	30	151	4.9	50.6	47.5	93.9	.462	23.38	21.94
	1932	25	150	4.5	50.4	40.2	79.8	.438	22.08	17.60
Picker tenders, male	1930	64	368	4.9	49.9	44.7	89.6	.409	20.41	18.25
	1932	47	219	4.4	51.5	40.9	79.4	.359	18.49	14.69
Card tenders, male	1930	76	652	4.9	50.8	45.7	90.0	.409	20.78	18.71
	1932	59	503	4.4	51.4	42.3	82.3	.357	18.35	15.09
Card tenders, female	1930	9	105	4.1	48.0	32.5	67.7	.374	17.95	12.15
	1932	14	83	5.4	49.3	42.9	87.0	.312	15.38	13.38
Card strippers, male	1930	74	352	4.8	49.5	44.7	90.3	.452	22.37	20.23
	1932	56	282	4.6	50.9	43.3	85.1	.398	20.26	17.21
Card grinders, male	1930	13	34	5.3	48.7	49.9	102.5	.489	23.81	24.39
	1932	12	33	5.1	49.6	44.8	90.3	.437	21.68	19.56
Gill-box tenders, male	1930	10	451	4.1	50.8	36.3	71.5	.391	19.86	14.20
	1932	13	494	3.7	51.4	32.4	63.0	.348	17.89	11.28
Gill-box tenders, female	1930	26	525	4.8	50.2	41.3	82.3	.326	16.37	13.47
	1932	22	527	4.7	50.1	38.6	77.0	.289	14.48	11.14
Comber tenders, male	1930	14	284	4.0	50.4	36.5	72.4	.469	23.64	17.12
	1932	14	321	3.4	49.3	28.9	58.6	.404	19.92	11.69
Comber tenders, female	1930	18	139	4.9	49.9	42.2	84.6	.375	18.71	15.83
	1932	15	151	4.9	50.4	39.6	78.6	.317	15.98	12.56
Drawing-frame tenders, male	1930	9	209	4.7	50.5	37.2	73.7	.390	19.70	14.52
	1932	10	139	4.4	49.3	39.1	79.3	.349	17.21	13.65
Drawing-frame tenders, female	1930	29	1,983	4.5	49.4	37.7	76.3	.358	17.69	13.51
	1932	27	1,858	4.7	49.6	38.5	77.6	.308	15.28	11.85
Spinners, mule, male	1930	71	1,223	4.7	50.0	40.8	81.6	.620	31.00	25.31
	1932	53	1,098	4.5	51.3	40.7	79.3	.515	26.42	20.97
Spinners, mule, female	1930	3	9	4.3	52.6	35.8	68.1	.359	18.88	12.84
	1932	3	24	5.6	49.3	47.9	97.2	.477	23.52	22.85
Spinners, frame, male	1930	4	73	3.1	48.5	25.1	51.8	.365	17.70	9.17
	1932	10	144	5.1	52.8	52.5	99.4	.327	17.27	17.17
Spinners, frame, female	1930	34	1,301	4.4	49.4	37.7	76.3	.380	18.77	14.30
	1932	25	1,145	4.9	49.4	40.6	82.2	.340	16.80	13.80
Doffers, male	1930	4	21	5.0	51.7	43.7	84.5	.237	12.25	10.38
	1932	6	36	5.0	51.9	45.4	87.5	.243	12.61	11.05
Doffers, female	1930	24	698	4.3	49.7	36.5	73.4	.269	13.37	9.81
	1932	21	572	4.4	50.2	36.5	72.7	.248	12.45	9.03
Winders, male	1930	13	28	3.6	52.3	31.8	60.8	.322	16.84	10.24
	1932	16	110	5.1	57.4	57.3	99.8	.292	16.76	16.71
Winders, female	1930	63	2,115	4.6	49.0	38.7	79.0	.379	18.57	14.66
	1932	63	2,117	4.9	49.5	40.1	81.0	.310	15.35	12.44
Twister tenders, male	1930	12	37	4.1	53.0	38.1	71.9	.426	22.58	16.22
	1932	19	91	5.1	55.7	53.6	96.2	.329	18.33	17.62
Twister tenders, female	1930	69	1,487	4.8	49.8	40.8	81.9	.365	18.18	14.87
	1932	59	1,384	4.8	49.8	38.9	78.1	.305	15.19	11.88
Spooler tenders, male	1930	2	13	3.0	51.5	26.8	52.0	.265	13.65	7.11
	1932	3	11	3.0	48.0	25.5	53.1	.331	15.89	8.43
Spooler tenders, female	1930	87	1,147	4.3	48.9	34.8	71.2	.383	18.73	13.33
	1932	69	1,218	4.3	49.8	34.6	69.5	.304	15.14	10.52
Creelers, male	1930	5	77	4.9	48.6	39.9	82.1	.346	16.82	13.79
	1932	4	57	4.8	48.9	41.5	84.9	.309	15.11	12.80
Creelers, female	1930	7	46	4.8	49.5	40.5	81.8	.331	16.38	13.37
	1932	6	62	4.3	48.5	35.0	72.2	.297	14.40	10.39
Dresser tenders, male	1930	90	621	4.8	49.3	41.9	85.0	.650	32.05	27.26
	1932	74	517	4.6	50.2	40.9	81.5	.562	28.21	22.97
Dresser tenders, female	1930	3	10	5.3	53.0	44.4	83.8	.355	18.82	15.76
	1932	6	70	5.5	49.5	47.6	96.2	.456	22.57	21.73
Tiers-in, hand, male	1930	8	23	4.4	48.9	41.5	84.9	.597	29.19	24.82
	1932	2	9	5.9	50.1	48.0	95.8	.541	27.10	25.96
Tiers-in, hand, female	1930	4	18	5.8	48.6	47.3	97.3	.295	14.34	13.98
	1932	3	7	4.1	49.7	35.7	71.8	.478	23.76	17.05
Tiers-in, machine, male	1930	6	8	5.1	49.5	42.4	85.7	.581	28.76	24.66
	1932	7	9	5.0	49.3	46.3	93.9	.483	23.81	22.36
Drawers-in, hand, male	1930	5	17	5.4	53.9	44.2	82.0	.787	42.42	34.76
	1932	10	24	4.5	51.0	38.4	75.3	.580	29.58	22.29
Drawers-in, hand, female	1930	89	666	4.6	49.5	37.1	74.9	.489	24.21	18.11
	1932	74	608	4.8	49.8	38.0	76.3	.423	21.07	16.06
Loom fixers, male	1930	91	701	5.1	49.8	44.1	88.6	.775	38.60	34.23
	1932	79	594	5.0	51.6	45.5	88.2	.676	34.88	30.72

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1930 AND 1932, BY OCCUPATION AND SEX—Con.

Occupation and sex	Year	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
						Average number	Per cent of full time			
Weavers, male	1930	93	4,187	4.8	49.8	40.7	81.7	$0.611	$30.43	$24.85
	1932	80	3,291	4.8	51.4	43.0	83.7	.497	25.55	21.38
Weavers, female	1930	81	2,012	4.7	49.6	38.6	77.8	.544	26.98	20.96
	1932	58	1,082	4.9	52.4	43.4	82.8	.440	23.06	19.12
Cloth inspectors, male	1930	27	241	4.7	49.0	39.6	80.8	.538	26.36	21.31
	1932	55	318	4.9	49.7	39.4	79.3	.470	23.36	18.52
Cloth inspectors, female	1930	18	144	4.6	49.0	38.7	79.0	.364	17.84	14.11
	1932	18	86	5.0	51.0	43.7	85.7	.333	16.98	14.55
Burlers, female	1930	92	2,258	4.7	49.4	38.6	78.1	.339	16.75	13.09
	1932	77	2,455	4.7	50.2	36.8	73.3	.294	14.76	10.82
Menders, female	1930	89	2,511	5.0	49.3	40.9	83.0	.459	22.63	18.77
	1932	76	2,093	4.4	49.8	36.6	73.5	.371	18.48	13.57
Perchers, male	1930	86	570	5.2	49.0	43.4	88.6	.539	26.41	23.38
	1932	68	367	5.1	49.9	41.2	82.6	.460	22.95	18.96
Perchers, female	1930	19	138	5.1	49.3	42.0	85.2	.394	19.42	16.55
	1932	17	158	4.9	50.6	40.3	79.6	.336	17.00	13.56
Fullers, male	1930	81	270	4.7	49.6	43.4	87.5	.451	22.37	19.56
	1932	68	212	4.9	50.1	47.4	94.6	.395	19.79	18.73
Washer tenders, cloth, male	1930	82	405	4.9	49.6	45.1	90.9	.455	22.57	20.54
	1932	72	332	4.9	50.3	46.6	92.6	.397	19.97	18.49
Dryer tenders, cloth, male	1930	83	237	4.8	50.2	45.1	89.8	.433	21.74	19.54
	1932	72	209	5.0	51.2	48.7	95.1	.373	19.10	18.16
Truckers, male	1930	103	1,655	4.9	48.9	41.4	84.7	.396	19.36	16.39
	1932	85	1,597	4.8	49.9	41.3	82.8	.351	17.51	14.51
Truckers, female	1930	11	113	4.1	49.9	35.7	71.5	.292	14.57	10.44
	1932	4	38	5.5	53.8	49.0	91.1	.197	10.60	9.65
Dye-house laborers, male	1930	82	944	4.7	49.8	44.9	90.2	.436	21.71	19.55
	1932	67	745	4.2	50.2	40.4	80.5	.379	19.03	15.31
Other employees, male	1930	105	7,238	5.0	49.7	44.6	89.7	.479	23.81	21.34
	1932	91	8,053	5.1	50.2	45.6	90.8	.441	22.14	20.11
Other employees, female	1930	93	2,317	4.7	49.8	39.7	79.7	.337	16.78	13.41
	1932	80	2,272	4.8	49.8	39.4	79.1	.308	15.34	12.13
All employees, male	1930	105	21,591	4.8	49.7	42.6	85.7	.516	25.65	21.97
	1932	91	20,407	4.8	50.6	43.1	86.2	.447	22.62	19.26
All employees, female	1930	105	19,809	4.7	49.5	38.8	78.4	.392	19.40	15.19
	1932	90	18,102	4.7	50.0	38.5	77.0	.327	16.35	12.59
All employees, male and female	1930	105	41,400	4.8	49.6	40.7	82.1	.460	22.82	18.73
	1932	91	38,509	4.8	50.3	40.9	81.3	.394	19.82	16.13

Hours and Earnings, 1930 and 1932, by Sex and State

TABLE 3 shows, for the males and females separately and for both sexes combined, the average days worked, average full-time and actual hours and earnings in one week, the per cent of full time worked in the week, and average earnings per hour. The "Southern district" shown in the table included Georgia, Kentucky, Maryland, South Carolina, Tennessee, and Virginia in 1930, and all of these States except Maryland in 1932. The mill covered in Maryland in 1930 was closed in 1932.

The most significant fact revealed by this table is that average earnings per hour and per week for each sex in each State were less in 1932 than in 1930. In the 2-year period the average hourly earnings of males decreased from 51.6 to 44.7 cents and those of females decreased from 39.2 to 32.7 cents. In the various States or districts in 1930 the average hourly earnings of males ranged from 34.8 to 63 cents, those of females ranged from 25 to 50.3 cents, and those of both sexes combined ranged from 30.8 to 56.7 cents. In 1932 the averages

of males ranged from 25.5 to 52.3 cents, those of females ranged from 21.1 to 40.9 cents, and those of both sexes ranged from 23.4 to 46.5 cents.

In 1930 the average actual earnings per week of males ranged, by States, from $16.22 to $27.84, those of females from $10.76 to $19.85, and those of both sexes combined from $13.91 to $23.66. In 1932 the average earnings per week of males ranged from $11.71 to $26.68, those of females from $9.22 to $18.43, and those of both sexes from $10.50 to $22.20. The actual weekly earnings of males in all States combined declined from $21.97 in 1930 to $19.26 in 1932, and those of females fell from $15.19 to $12.59.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1930 AND 1932, BY SEX AND STATE

Sex and State	Year	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
						Average number	Per cent of full time			
Males										
Connecticut	1930	12	1,385	4.5	48.9	39.6	81.0	$0.554	$27.09	$21.93
	1932	9	928	4.1	49.5	38.1	77.0	.480	23.76	18.30
Maine	1930	12	1,664	4.4	51.1	39.8	77.9	.526	26.88	20.94
	1932	12	1,613	4.8	54.1	45.3	83.7	.438	23.70	19.85
Massachusetts	1930	16	8,096	4.6	48.5	39.0	80.4	.515	24.98	20.11
	1932	14	7,817	4.6	49.1	39.5	80.4	.450	22.10	17.81
New Hampshire	1930	4	976	5.4	51.3	48.2	94.0	.490	25.14	23.65
	1932	4	1,104	5.0	52.9	45.3	85.6	.407	21.53	18.44
New Jersey	1930	4	1,411	5.1	48.4	44.2	91.3	.630	30.49	27.84
	1932	4	1,869	5.5	49.6	51.0	102.8	.523	25.94	26.68
New York	1930	6	1,035	4.6	50.8	42.0	82.7	.523	26.57	21.93
	1932	4	794	4.3	51.2	39.6	77.3	.452	23.14	17.92
Pennsylvania	1930	22	1,417	5.0	53.5	46.7	87.3	.543	29.05	25.39
	1932	18	1,496	5.0	53.2	45.4	85.3	.472	25.11	21.45
Rhode Island	1930	14	3,313	5.4	48.7	47.3	97.1	.531	25.86	25.14
	1932	15	3,033	4.9	48.1	41.7	86.7	.474	22.80	19.77
Vermont	1930	3	571	5.2	48.9	45.1	92.2	.545	26.65	24.58
	1932	3	868	5.6	55.7	57.1	102.5	.364	20.27	20.77
Southern district	1930	12	1,723	4.9	53.5	46.7	87.3	.348	18.62	16.22
	1932	8	885	4.7	56.0	46.0	82.1	.255	14.28	11.71
Total	1930	105	21,591	4.8	49.7	42.6	85.7	.516	25.65	21.97
	1932	91	20,407	4.8	50.6	43.1	85.2	.447	22.62	19.26
Females										
Connecticut	1930	12	664	4.3	48.9	35.7	73.0	.397	19.41	14.20
	1932	8	404	3.4	49.7	29.3	59.0	.316	15.71	9.27
Maine	1930	12	933	4.0	50.9	32.7	64.2	.415	21.12	13.56
	1932	12	835	4.3	53.8	36.4	67.7	.336	18.08	12.23
Massachusetts	1930	16	6,734	4.4	48.0	34.8	72.5	.409	19.63	14.24
	1932	14	6,382	4.6	48.0	35.6	74.2	.332	15.94	11.83
New Hampshire	1930	4	971	5.1	50.0	42.9	85.8	.348	17.40	14.94
	1932	4	1,212	4.4	53.5	37.1	69.3	.289	15.46	10.74
New Jersey	1930	4	1,578	4.8	48.4	39.5	81.6	.503	24.35	19.85
	1932	4	2,222	5.5	48.7	45.1	92.6	.409	19.92	18.43
New York	1930	6	1,097	3.9	49.1	34.3	69.9	.393	19.30	13.48
	1932	4	934	4.0	49.6	32.6	65.7	.319	15.82	10.40
Pennsylvania	1930	22	2,583	4.6	53.2	42.1	79.1	.363	19.31	15.29
	1932	18	1,897	4.9	53.4	41.2	77.2	.278	14.85	11.47
Rhode Island	1930	14	3,531	5.2	48.2	43.7	90.7	.402	19.38	17.56
	1932	15	2,672	4.7	48.0	37.5	78.1	.354	16.99	13.27
Vermont	1930	3	458	5.3	48.6	43.8	90.1	.364	17.69	15.98
	1932	3	700	5.8	54.0	53.1	98.3	.263	14.20	13.99
Southern district	1930	12	1,260	4.8	53.8	43.1	80.1	.250	13.45	10.76
	1932	8	844	4.8	55.5	43.8	78.9	.211	11.71	9.22
Total	1930	105	19,809	4.7	49.5	38.8	78.4	.392	19.40	15.19
	1932	90	18,102	4.7	50.0	38.5	77.0	.327	16.35	12.59

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1930 AND 1932, BY SEX AND STATE—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
						Average number	Per cent of full time			
Males and females										
Connecticut	1930	12	2,049	4.4	48.9	38.3	78.3	$0.507	$24.79	$19.43
	1932	9	1,332	3.9	49.6	35.4	71.4	.439	21.77	15.56
Maine	1930	12	2,597	4.3	51.0	37.3	73.1	.491	25.04	18.29
	1932	12	2,448	4.7	54.0	42.3	78.3	.408	22.03	17.25
Massachusetts	1930	16	14,830	4.5	48.3	37.1	76.8	.470	22.70	17.44
	1932	14	14,199	4.6	48.6	37.8	77.8	.400	19.44	15.12
New Hampshire	1930	4	1,947	5.2	50.7	45.6	89.9	.424	21.50	19.30
	1932	4	2,316	4.7	53.2	41.0	77.1	.351	18.67	14.41
New Jersey	1930	4	2,989	5.0	48.4	41.7	86.2	.567	27.44	23.66
	1932	4	4,091	5.5	49.1	47.8	97.4	.465	22.83	22.20
New York	1930	6	2,132	4.3	50.0	38.0	76.0	.463	23.15	17.59
	1932	4	1,728	4.2	50.4	35.8	71.0	.387	19.50	13.86
Pennsylvania	1930	22	4,000	4.7	53.3	43.7	82.0	.432	23.03	18.86
	1932	18	3,393	4.9	53.3	43.1	80.9	.368	19.61	15.87
Rhode Island	1930	14	6,844	5.3	48.5	45.5	93.8	.467	22.65	21.23
	1932	15	5,705	4.8	48.0	39.7	82.7	.421	20.21	16.73
Vermont	1930	3	1,029	5.3	48.8	44.6	91.4	.466	22.74	20.75
	1932	3	1,568	5.7	54.9	55.3	100.7	.321	17.62	17.74
Southern district	1930	12	2,983	4.9	53.6	45.2	84.3	.308	16.51	13.91
	1932	8	1,729	4.7	55.7	44.9	80.6	.234	13.03	10.50
Total	1930	105	41,400	4.8	49.6	40.7	82.1	.460	22.82	18.73
	1932	91	38,509	4.8	50.3	40.9	81.3	.394	19.82	16.13

Hours and Earnings, 1930 and 1932, in Selected Occupations

TABLE 4 shows average days, hours, and earnings and the per cent of full time actually worked in certain important and representative occupations which are believed fairly to illustrate the variations in hours and earnings of the wage earners in this industry in the different occupations and States covered in this report.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 SPECIFIED OCCUPATIONS, IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1932, BY OCCUPATION, SEX, AND STATE

Occupation, sex, and State	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
					Average number	Per cent of full time			
Card tenders, male:									
Connecticut	6	31	3.9	49.4	35.4	71.7	$0.361	$17.83	$12.77
Maine	12	50	4.3	54.6	41.5	76.0	.329	17.96	13.65
Massachusetts	10	138	3.6	49.3	35.4	71.8	.362	17.85	12.79
New Hampshire	4	35	5.2	51.9	54.5	105.0	.343	17.80	18.71
New Jersey	3	48	5.7	47.1	52.7	111.9	.475	22.37	25.01
New York	2	23	4.3	53.6	42.8	79.9	.390	20.90	16.68
Pennsylvania	7	49	5.2	54.0	49.0	90.7	.383	20.68	18.78
Rhode Island	6	49	4.5	48.0	35.7	74.4	.356	17.09	12.69
Vermont	3	23	4.7	57.1	50.4	88.3	.324	18.50	16.31
Southern district	6	57	4.5	55.4	43.8	79.1	.238	13.19	10.40
Total	59	503	4.4	51.4	42.3	82.3	.357	18.35	15.09

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 SPECIFIED OCCUPATIONS, IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1932, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
					Average number	Per cent of full time			
Drawing-frame tenders, female:									
Maine	1	(1)	(1)	(1)	(1)	------	(1)	(1)	(1)
Massachusetts	5	858	4.4	48.0	34.6	72.1	$0.333	$15.98	$11.49
New Hampshire	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey	3	252	5.6	46.8	41.7	89.1	.361	16.89	15.02
New York	3	84	4.4	49.7	37.6	75.7	.253	12.57	9.53
Pennsylvania	6	257	5.1	54.0	44.0	81.5	.260	14.04	11.46
Rhode Island	5	132	4.7	48.0	36.7	76.5	.314	15.07	11.55
Vermont	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Southern district	2	82	5.3	54.0	51.4	95.2	.200	10.80	10.28
Total	27	1,858	4.7	49.6	38.5	77.6	.308	15.28	11.85
Spinners, mule, male:									
Connecticut	6	100	3.8	48.8	32.5	66.6	.498	24.30	16.21
Maine	11	167	4.8	54.1	44.9	83.0	.502	27.16	22.54
Massachusetts	9	352	4.5	49.0	38.2	78.0	.557	27.29	21.24
New Hampshire	3	56	5.1	52.7	51.0	96.8	.584	30.78	29.81
New Jersey	2	55	5.8	47.1	46.8	99.4	.676	31.84	31.60
New York	2	67	3.8	52.1	36.1	69.3	.506	26.36	18.27
Pennsylvania	8	103	5.0	54.1	44.4	82.1	.508	27.48	22.57
Rhode Island	4	55	3.3	48.0	27.3	56.9	.548	26.30	14.97
Vermont	3	71	5.3	54.2	51.8	95.6	.463	25.09	23.99
Southern district	5	72	4.1	56.6	40.1	70.8	.234	13.24	9.39
Total	53	1,098	4.5	51.3	40.7	79.3	.515	26.42	20.97
Spinners, frame, female:									
Maine	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts	6	541	4.9	48.0	38.9	81.0	.388	18.62	15.10
New Hampshire	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey	3	113	5.1	46.1	40.0	86.8	.389	17.93	15.54
New York	2	55	4.4	50.1	37.9	75.6	.261	13.08	9.87
Pennsylvania	4	127	5.2	54.0	45.2	83.7	.248	13.39	11.22
Rhode Island	5	131	5.0	48.0	39.1	81.5	.330	15.84	12.90
Vermont	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Southern district	2	51	5.5	54.3	49.8	91.7	.249	13.52	12.40
Total	25	1,145	4.9	49.4	40.6	82.2	.340	16.80	13.80
Spooler tenders, female:									
Connecticut	7	71	3.4	49.7	29.4	59.2	.272	13.52	8.01
Maine	11	101	3.9	53.8	30.9	57.4	.348	18.72	10.76
Massachusetts	13	493	4.5	48.0	35.1	73.1	.304	14.59	10.69
New Hampshire	4	79	3.5	54.1	27.6	51.0	.335	18.12	9.26
New Jersey	4	86	4.8	48.3	38.2	79.1	.380	18.35	14.53
New York	3	31	3.3	49.2	26.3	53.5	.285	14.02	7.48
Pennsylvania	8	42	4.8	51.7	38.3	74.1	.325	16.80	12.47
Rhode Island	10	189	3.9	48.0	31.1	64.8	.304	14.59	9.47
Vermont	3	86	5.6	53.9	50.4	93.5	.251	13.53	12.67
Southern district	6	40	4.3	56.2	37.6	66.9	.181	10.17	6.79
Total	69	1,218	4.3	49.8	34.6	69.5	.304	15.14	10.52
Loom fixers, male:									
Connecticut	8	26	4.4	49.4	40.5	82.0	.641	31.67	25.96
Maine	12	58	5.3	54.0	47.3	87.6	.634	34.24	30.03
Massachusetts	14	212	5.0	49.9	44.4	89.0	.714	35.63	31.69
New Hampshire	4	37	5.2	53.2	47.9	90.0	.560	29.79	26.82
New Jersey	4	45	5.3	58.7	56.8	96.8	.827	48.54	46.94
New York	4	38	4.0	50.9	35.0	68.8	.586	29.83	20.53
Pennsylvania	11	32	5.3	52.2	49.9	95.6	.768	40.09	38.35
Rhode Island	12	98	4.9	48.5	42.0	86.6	.709	34.39	29.73
Vermont	3	22	5.5	55.2	53.7	97.3	.575	31.74	30.90
Southern district	7	26	4.9	56.7	47.9	84.5	.329	18.65	15.73
Total	79	594	5.0	51.6	45.5	88.2	.676	34.88	30.72

[1] Data included in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 SPECIFIED OCCUPATIONS, IN THE MANUFACTURE OF WOOLEN AND WORSTED GOODS, 1932, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average number of days on which employees worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings per week
					Average number	Per cent of full time			
Weavers, male:									
Connecticut	8	262	4.0	49.3	38.0	77.1	$0.522	$25.73	$19.83
Maine	12	364	4.8	54.1	42.0	77.6	.474	25.64	19.91
Massachusetts	14	875	4.8	50.9	42.7	83.9	.472	24.02	20.15
New Hampshire	4	141	5.0	50.9	42.7	83.9	.510	25.96	21.74
New Jersey	4	300	5.0	53.1	48.5	91.3	.536	28.46	26.00
New York	4	93	4.3	50.6	38.6	76.3	.457	23.12	17.65
Pennsylvania	11	269	5.1	52.4	47.3	90.3	.547	28.66	25.85
Rhode Island	13	641	4.7	48.2	40.6	84.2	.586	28.25	23.81
Vermont	3	176	5.2	53.8	48.2	89.6	.418	22.49	20.11
Southern district	7	170	4.5	57.0	44.4	77.9	.269	15.33	11.92
Total	80	3,291	4.8	51.4	43.0	83.7	.497	25.55	21.38
Weavers, female:									
Connecticut	5	22	3.5	50.2	30.8	61.4	.413	20.73	12.72
Maine	8	81	3.8	54.0	33.9	62.8	.417	22.52	14.14
Massachusetts	12	191	5.4	48.0	43.0	89.6	.419	20.11	18.03
New Hampshire	3	50	5.1	52.2	44.8	85.8	.395	20.62	17.69
New Jersey	4	209	5.5	58.3	54.0	92.6	.535	31.19	28.88
New York	3	153	4.5	49.8	37.2	74.7	.431	21.46	16.05
Pennsylvania	7	42	4.7	50.2	42.2	84.1	.441	22.14	18.60
Rhode Island	6	142	5.5	48.1	44.0	91.5	.532	25.59	23.42
Vermont	3	68	5.1	54.6	45.0	82.4	.368	20.09	16.53
Southern district	7	124	4.3	56.6	40.6	71.7	.240	13.58	9.76
Total	58	1,082	4.9	52.4	43.4	82.8	.440	23.06	19.12
Burlers, female:									
Connecticut	8	118	3.3	49.3	26.9	54.6	.303	14.94	8.15
Maine	11	149	4.3	53.9	35.2	65.3	.342	18.43	12.03
Massachusetts	13	689	4.9	48.0	37.0	77.1	.278	13.34	10.28
New Hampshire	3	276	3.6	54.0	27.6	51.1	.270	14.58	7.44
New Jersey	4	278	5.8	48.5	44.6	92.0	.394	19.11	17.58
New York	4	148	4.0	49.6	31.7	63.9	.257	12.75	8.14
Pennsylvania	11	178	4.7	52.3	35.7	68.3	.262	13.70	9.35
Rhode Island	13	380	4.6	48.0	37.0	77.1	.326	15.65	12.04
Vermont	3	129	6.1	53.9	57.2	106.1	.234	12.61	13.39
Southern district	7	110	4.3	56.4	37.0	65.6	.153	8.63	5.65
Total	77	2,455	4.7	50.2	36.8	73.3	.294	14.76	10.82
Menders, female:									
Connecticut	7	78	3.8	49.9	34.3	68.7	.338	16.87	11.56
Maine	11	171	4.8	53.9	42.0	77.9	.344	18.54	14.47
Massachusetts	14	730	4.1	48.0	31.0	64.6	.388	18.62	12.06
New Hampshire	4	49	5.3	51.8	48.1	92.9	.367	19.01	17.68
New Jersey	4	124	5.7	48.8	51.8	106.1	.450	21.96	23.35
New York	4	154	3.3	49.6	26.2	52.8	.380	18.85	9.96
Pennsylvania	11	132	4.7	52.0	36.1	69.4	.449	23.35	16.21
Rhode Island	14	427	4.4	48.0	35.8	74.6	.415	19.92	14.85
Vermont	3	130	5.8	53.9	54.5	101.1	.243	13.10	13.21
Southern district	4	98	4.6	56.6	41.7	73.7	.180	10.19	7.52
Total	76	2,093	4.4	49.8	36.6	73.5	.371	18.48	13.57

Union Scales of Wages and Hours of Labor in 1932

Part 1. Preliminary Report for Selected Cities

THE Bureau of Labor Statistics has collected, as of May 15, 1932, information concerning the union scales of wages and hours of labor in the principal time-work trades in 67 of the leading cities of the United States. In some instances the matter of agreement as to the rate in effect on May 15 was in such a chaotic state, due to revision of scales and arbitration proceedings, that the information is shown for a slightly later date, when a definite rate was established. A full compilation of the figures is now in progress and will be published as a bulletin of the bureau.

In this article an abridged compilation is made of the 1932 data for 20 important trade groups in 40 localities, with comparative figures for all but seven of the preceding years back to 1913, in so far as effective scales were found for the earlier years. Data for 1914, 1915, 1916, 1917, 1918, 1921, and 1923 are omitted for lack of space, but figures for those years may be obtained by referring to the September, 1925, issue of the Labor Review.

The trades here covered are:

Bricklayers.
Building laborers.
Carpenters.
Cement finishers.
Compositors: Book and job.
Compositors, day work: Newspaper.
Electrotypers: Finishers.
Electrotypers: Molders.
Granite cutters, inside.
Hod carriers.
Inside wiremen.
Painters.
Plasterers.
Plasterers' laborers.
Plumbers.
Sheet-metal workers.
Stonecutters.
Structural-iron workers.
Typesetting-machine operators: Book and job.
Typesetting-machine operators, day work: Newspaper.

The union scale represents the minimum rate and the maximum hours agreed upon between the unions and the employers. However, a higher rate was paid to some or perhaps all of the members of a union in some cities.

The union scale generally represents the prevailing rate for the trade in the locality, even though all persons in the trade may not be members of the union.

Two or more quotations of rates and hours are shown for some occupations in some cities. Such quotations indicate that there were two or more agreements with different employers and possibly made also by different unions, or for subclassifications of a specific occupation, such as building laborers.

The report affords 684 comparisons of wage rates per hour as between 1931 and 1932. There are 14 cases of increase, 337 cases of decrease, and 333 cases of no change in rates. There are 684 comparisons of full-time hours per week. Of this number 7 are increases, 58 are decreases, and 619 instances of no change.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES

Bricklayers

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlanta	45.0	70.0	112.5	100.0	{112.5 125.0	112.5 125.0	140.0	140.0	140.0	125.0	125.0	125.0	112.5	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	100.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	162.5	175.0	175.0	125.0	[1] 45	[1] 45	[1] 45	[1] 45	44	44	44	44	[2] 44	40	40	40	40
Birmingham	70.0	87.5	100.0	100.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	100.0	[3] 44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	65.0	80.0	100.0	100.0	125.0	125.0	140.0	140.0	140.0	150.0	150.0	150.0	130.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Buffalo	65.0	85.0	100.0	100.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	48	[4] 44	[4] 44	44	44	44	44	44	44	44	44	44	40
Charleston, S. C	40.0	75.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53	48	48	48	48	44	48	44	44	44	44	44	44
Chicago	75.0	87.5	125.0	110.0	125.0	150.0	150.0	162.5	162.5	162.5	170.0	170.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	65.0	90.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	162.5	137.5	45	45	45	45	45	44	44	44	44	44	40	40	40
Cleveland	65.0	90.0	125.0	125.0	150.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	137.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	87.5	100.0	112.5	137.5	150.0	150.0	162.5	162.5	162.5	162.5	175.0	175.0	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Denver	75.0	100.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	131.3	44	44	44	44	44	44	44	44	40	44	44	40	40
Detroit	65.0	90.0	125.0	100.0	150.0	150.0	150.0	157.5	157.5	157.5	157.5	150.0	125.0	[5] 48	[6] 44	44	44	44	44	44	44	44	44	40	40	40
Fall River	55.0	85.0	115.0	95.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Indianapolis	75.0	85.0	125.0	115.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	130.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Jacksonville	62.5	75.0	87.5	87.5	100.0	125.0	150.0	150.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	75.0	100.0	112.5	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	162.5	132.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	75.0	100.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	125.0	125.0	[7] 44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	75.0	87.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Louisville	65.0	85.0	115.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	48	44	44	44	44	44	44	44	44	40	40	40	40
Manchester	55.0	90.0	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	40	40	40	40
Memphis	75.0	87.5	125.0	112.5	150.0	150.0	162.5	162.5	162.5	162.5	162.5	162.5	137.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Milwaukee	67.5	90.0	125.0	100.0	125.0	125.0	125.0	140.0	140.0	140.0	140.0	140.0	100.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Minneapolis	65.0	87.5	125.0	100.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J	65.0	87.5	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	193.8	168.8	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	60.0	82.5	100.0	100.0	125.0	125.0	137.5	137.5	143.8	150.0	150.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	62.5	75.0	100.0	100.0	125.0	125.0	125.0	125.0	150.0	150.0	150.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	70.0	87.5	125.0	125.0	150.0	150.0	175.0	175.0	175.0	187.5	192.5	192.5	165.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Omaha	70.0	87.5	125.0	100.0	125.0	125.0	125.0	137.5	137.5	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	62.5	80.0	130.0	125.0	150.0	150.0	162.5	162.5	162.5	162.5	175.0	175.0	150.0	44	44	44	44	44	44	44	40	40	40	40	40	[8] 24
Pittsburgh	70.0	90.0	112.5	130.0	140.0	155.0	162.5	162.5	170.0	170.0	175.0	175.0	150.0	44	44	44	44	44	44	44	44	44	44	40	40	40

Portland, Oreg.	75.0	100.0	125.0	112.5	125.0	137.5	137.5	137.5	150.0	150.0	150.0	150.0	120.0	44	44	44	44	44	44	44	40	40	40	40	40	40
Providence	65.0	80.0	115.0	115.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Richmond, Va.	65.0	87.5	100.0	100.0	125.0	150.0	150.0	125.0	150.0	150.0	150.0	150.0	150.0	45	[9] 45	[9] 45	[9] 45	[9] 45	45	45	44	44	44	[2] 44	[10] 44	40
St. Louis	70.0	100.0	125.0	125.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	65.0	87.5	125.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	100.0	125.0	112.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	87.5	112.5	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	40	40	40	40
Scranton	60.0	75.0	112.5	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	[11] 44	44	44	44	44	44	44	44	44	44	44	44	40
Seattle	75.0	112.5	125.0	112.5	137.5	137.5	137.5	145.0	150.0	150.0	150.0	150.0	120.0	44	40	40	44	44	44	44	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40
Washington	62.5	87.5	100.0	137.5	150.0	162.5	162.5	162.5	162.5	162.5	175.0	175.0	175.0	[13] 45	44	44	44	44	44	44	44	44	44	40	40	40

Building laborers

Baltimore	------	75.0	75.0	------	62.5	------	------	------	------	------	------	------	50.0	------	44	44	------	44	------	------	------	------	------	------	------	40
Boston	35.0	40.0	{67.5 / 70.0	67.5 / [14] 70.0	65.0	65.0	74.0	74.0	74.0	80.0	80.0	80.0	70.0	48	44	44	44	48	48	48	48	48	48	48	48	40
Chicago	40.0	57.5	100.0	72.5	72.5	82.5	87.5	{90.0 / 105.0 / 120.0	90.0 / 105.0 / 120.0	90.0 / 105.0 / 120.0	97.5 / 112.5 / 127.5	97.5 / 112.5 / 127.5	82.5 / 97.5 / 112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	20.0	40.0	45.0	40.0	52.5	55.0	58.0	60.0	60.0	60.0	60.0	60.0	45.0	60	50	50	50	50	50	50	50	50	50	50	45	40
Cleveland	------	57.5	87.5	57.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	72.0	------	44	44	44	44	44	44	44	44	44	40	40	40
Denver	------	50.0	50.0	------	------	81.3	81.3	------	------	------	------	62.5	50.0	------	44	44	------	------	44	44	------	------	------	------	44	44
Detroit	------	65.0	75.0	50.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	65.0	50.0	------	44	44	44	49½	44	44	44	44	44	44	44	44
Kansas City, Mo.	27.5	57.5	75.0	70.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	82.5	70.0	48	48	44	44	44	44	44	44	44	44	44	40	40
Los Angeles	34.4	50.0	62.5	62.5	62.5	62.5	75.0	75.0	{62.5 / 75.0	62.5	62.5	------	62.5	44	44	44	44	44	44	44	44	44	44	40	------	40
Milwaukee	------	------	65.0	55.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	------	------	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	------	------	------	55.0	55.0	55.0	55.0	55.0	55.0	{55.0 / 65.0	65.0	65.0	65.0	------	------	------	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	------	------	------	------	------	100.0	112.5	112.5	112.5	112.5	125.0	125.0	95.0	------	------	------	------	------	44	44	44	44	44	40	40	40
New Haven	------	------	------	------	------	------	------	75.0	75.0	75.0	75.0	70.0	60.0	------	------	------	------	------	------	------	44	44	44	44	40	40
New Orleans	------	------	------	50.0	------	------	------	------	------	------	------	------	35.0	------	------	------	45	------	------	------	------	------	------	------	------	54

[1] 44½ hours per week, November to March, inclusive.
[2] 40 hours per week, June to August, inclusive.
[3] 48 hours per week, October to December, inclusive.
[4] 48 hours per week, November 16 to March 15.
[5] 44 hours per week, October to April, inclusive.
[6] 48 hours per week, December to February, inclusive.
[7] 48 hours per week, October to April, inclusive.
[8] Work 3 days per week.
[9] 44½ hours per week, December to February, inclusive.
[10] 40 hours per week, June to September, inclusive.
[11] 48 hours per week, September to April, inclusive.
[12] 44 hours per week, September to April, inclusive.
[13] 44½ hours per week, October to April, inclusive.
[14] Old scale; strike pending at time of report.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Building laborers—Continued

City	Rates per hour (cents)													Hours per week												
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
New York	22.5	40.5	75.0	60.0 81.3 87.5	81.3 100.0	81.3 100.0	105.0 117.5	90.6 115.0 125.0	93.8 115.0 125.0	93.8 120.0 130.0	103.1	103.1	[14] 103.1	48	48	48	44 48	44	44	44	44	44	44	44	40	40	40
Philadelphia									60.0	60.0	50.0	50.0	50.0									44	44	44	44	44
Pittsburgh	25.0	45.0	70.0	80.0 50.0	70.0	70.0	80.0	112.5 80.0	112.5 80.0	112.5 80.0	112.5 80.0	112.5 80.0	112.5 80.0	54	44	44	44	44	44	44	44	44	44	44	40	40
Portland, Oreg	37.5	62.5	75.0	67.5	67.5	67.5	67.5	67.5	68.8	68.8	75.0	75.0	60.0	48	44	44	44	44	44	44	44	44	44	44	40	40	40
St. Louis	25.0	40.3 45.0	54.0 67.5	54.0 57.5	75.0	75.0	75.0	75.0 87.5	61.5 75.0 87.5 92.5	[14] 61.5 [14] 75.0 [14] 87.5 [14] 92.5	87.5	87.5	78.8	44	44	44	44	44	44	44	44	44	44	44	44	44	40
St. Paul			61.3	55.0	55.0	55.0	55.0	55.0	55.0	55.0 65.0	55.0	55.0	55.0			49½	49½	49½	44	44	44	44	44	44	44	44
Salt Lake City		50.0	68.8										50.0		48	44										44
San Francisco	27.8	62.5	75.0	62.5	62.5	62.5	62.5	68.8	68.8 75.0	68.8 75.0	68.8 75.0	68.8	68.8	54	48	48	44	44	48	48	48	44	44	44	40	40
Scranton	25.0	50.0	58.5	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	54	48	48	48	48	48	48	48	48	48	48	48	48
Seattle	37.5	68.8	75.0	62.5	62.5	62.5	62.5	62.5	70.0	70.0	70.0	70.0	59.4	44	40	44	44	44	44	44	44	44	44	44	44	44

Carpenters

Atlanta	40.0	60.0	80.0	70.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	90.0	90.0	50	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	43.8	80.0	90.0	80.0	90.0	100.0	110.0	110.0	110.0	110.0	110.0	110.0	100.0	48	44	44	44	44	44	44	44	40	40	40	40	40
Birmingham	52.5	65.0	75.0	75.0	87.5	87.5	95.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	40	40	44
Boston	50.0	75.0	100.0	100.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	137.5	117.5	44	40	40	40	44	44	44	44	44	44	44	40	40
Buffalo	50.0	70.0	100.0	87.5	112.5	112.5	112.5	112.5	112.5	125.0	125.0	125.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Charleston, S. C	33.3	70.0	80.0	70.0	80.0	70.0	70.0 75.0	70.0 75.0	70.0 75.0	60.0 75.0	60.0 75.0	60.0 75.0	60.0 75.0	53	48	48	48	44 48	44	48	48 44	44	44	44	44	44
Chicago	65.0	80.0	125.0	110.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	162.5	131.3	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	50.0	70.0	100.0	95.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	140.0	120.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	40	40
Cleveland	50.0	85.0	125.0	104.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	112.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	55.0	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	40	40

	112.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	109.4	44	44	44	44	44	44	44	40	40	40	40	40	40

Denver	60.0	87.5	112.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	109.4	44	44	44	44	44	44	44	40	40	40	40	40	40
Detroit	50.0	80.0	100.0	85.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	42.0	75.0	100.0	85.0	95.0	95.0	100.0	100.0	100.0	100.0	100.0	100.0	85.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Indianapolis	50.0	75.0	100.0	92.5	97.5	110.0	110.0	110.0	122.5	122.5	122.5	122.5	100.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Jacksonville	31.3	65.0	80.0	80.0	90.0	90.0	100.0	100.0	80.0	80.0 70.0	80.0 70.0	80.0	80.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	55.0	85.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	50.0	80.0	92.5	80.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	80.0	80.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	75.0	87.5	100.0	112.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	60.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	100.0	80.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Manchester	40.0	60.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	50.0	75.0	100.0	75.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Milwaukee	50.0	70.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Minneapolis	50.0	75.0	100.0	80.0	90.0	------	------	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	-----	-----	44	44	44	44	44	44
Newark, N. J.	50.0	80.0	100.0	112.5	131.3	137.5	140.0	140.0	150.0	150.0	150.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	44	40	40
New Haven	47.5	65.0	100.0	90.0	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	106.3	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	40.0	60.0	75.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	48	48	48	44	44	44	44	44	44	44	44	44	44
New York	62.5	75.0	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	165.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Omaha	50.0	75.0	112.5	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	80.0	112.5	90.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	105.0	44	44	44	44	44	44	44	44	44	44	[2] 44	[2] 44	[2] 44
Pittsburgh	55.0	80.0	90.0	100.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Portland, Oreg.	50.0	86.0	100.0	90.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	90.0	44	44	44	44	44	44	44	44	44	44	[15] 44	40	40	40
Providence	50.0	70.0	100.0	85.0	100.0	110.0	110.0	110.0	117.5	117.5	117.5	117.5	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	62.5	82.5	100.0	110.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	40	40	40	40	40
St. Paul	50.0	75.0	100.0	80.0	90.0	------	------	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	-----	-----	44	44	44	44	44	44
Salt Lake City	62.5	100.0	112.5	90.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	112.5	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	106.3	104.4	104.4	104.4	112.5	112.5	112.5	112.5	112.5	112.5	90.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Scranton	42.5	70.0	87.5	87.5	112.5	112.5	112.5	125.0	125.0	125.0	118.8	125.0	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Seattle	56.3	93.8	100.0	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	90.0	44	44	44	44	44	44	44	44	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40
Washington	50.0	87.5	95.0	105.0	112.5	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	44½	44	44	44	44	44	44	44	44	44	40	40	40	40

[2] 40 hours per week, June to August, inclusive.
[12] 44 hours per week, September to April, inclusive.
[14] Old scale; strike pending at time of report.
[15] 40 hours per week, October to April, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Cement finishers

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlanta	------	------	------	100.0	100.0	100.0	100.0	100.0	100.0	100.00	100.0	100.0	100.0	------	------	------	44	44	44	44	44	44	44	44	44	44
Baltimore	------	75.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	100.0	------	44	44	44	44	44	44	44	40	40	40	40	40	40
Birmingham	50.0	75.0	75.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	------	100.0	48	48	48	48	48	44	44	44	44	44	44	40	------	40
Boston	62.5	75.0	100.0	100.0	110.0	110.0	137.5	137.5	137.5	137.5	137.5	137.5	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Buffalo	50.0	65.0	100.0	85.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	48	44	44	44	44	44	44	44	44	44	44	44	40
Chicago	65.0	80.0	125.0	110.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	162.5	131.3	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	50.0	60.0	90.0	87.5	107.5	117.5	123.8	127.5	130.0	130.0	132.5	132.5	102.5	50	50	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	40	40
Cleveland	{60.0 / 50.0}	80.0	90.0	104.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	112.5	48	44	44	44	44	44	44	44	44	44	40	40	40	40
Dallas	50.0	87.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	125.0	125.0	48	48	48	48	48	44	48	48	48	48	48	48	48	48
Denver	68.8	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	109.4	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	50.0	80.0	125.0	100.0	150.0	112.5	112.5	137.5	137.5	112.5	112.5	112.5	112.5	54	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	------	85.0	115.0	95.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	------	44	44	44	44	44	44	44	44	44	44	40	40	40
Indianapolis	50.0	70.0	90.0	90.0	105.0	105.0	105.0	110.0	112.5	117.5	117.5	117.5	94.0	50	50	50	50	50	50	50	50	44	44	44	44	44	44
Kansas City, Mo	62.5	87.5	107.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	55.6	87.5	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	54	[16] 44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	62.5	------	100.0	112.5	125.0	125.0	125.0	125.0	{125.0 / 137.5}	125.0	125.0	125.0	125.0	48	------	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	70.0	80.0	90.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	60	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	------	90.0	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	150.0	150.0	------	44	44	44	44	44	44	44	44	44	40	40	40	40
Memphis	50.0	------	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	54	------	44	44	44	44	44	44	44	44	44	40	44	44
Milwaukee	45.0	70.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	------	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	100.0	100.0	------	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	62.5	87.5	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	193.8	168.8	44	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	------	82.5	100.0	100.0	125.0	125.0	137.5	137.5	143.8	150.0	150.0	165.0	140.0	------	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	------	------	------	100.0	100.0	100.0	112.5	112.5	112.5	112.5	100.0	100.0	100.0	------	------	------	45	45	44	44	44	44	44	44	44	44	44
New York	62.5	75.0	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Omaha	------	75.0	112.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	100.0	------	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	72.5	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	105.0	49½	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	------	75.0	82.5	87.5	125.0	125.0	135.0	135.0	135.0	135.0	135.0	140.0	140.0	------	44	44	44	44	44	44	44	44	44	44	40	40	40
Portland, Oreg	62.5	87.5	100.0	90.0	102.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	90.0	48	44	44	44	44	44	44	40	40	40	40	40	40	40
Providence	------	80.0	100.0	87.5	115.0	125.0	115.0	115.0	115.0	115.0	115.0	125.0	115.0	------	44	44	44	44	44	44	44	44	44	40	44	44	44
Richmond	------	------	------	87.5	125.0	------	------	100.0	125.0	125.0	125.0	------	125.0	------	------	------	44	44	------	------	44	44	44	44	------	44

Richmond	------	------	------	87.5	125.0	------	------	100.0	125.0	125.0	125.0	------	125.0	-----	-----	-----	44	44	-----	-----	44	44	44	44	-----	44
St. Louis	60.0	82.5	125.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0	157.5	157.5	131.3	44	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	50.0	75.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	87.5	112.5	------	100.0	106.3	------	------	150.0	112.5	112.5	100.0	100.0	48	48	48	-----	44	44	-----	-----	44	44	44	44	44
San Francisco	75.0	100.0	112.5	104.4	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Scranton	------	------	------	------	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	-----	-----	-----	-----	44	44	44	44	40	40	40	40	40
Seattle	62.5	100.0	112.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	90.0	48	40	40	44	44	44	44	44	44	44	44	44	44
Washington	------	87.5	90.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	125.0	125.0	125.0	-----	44	44	44	44	44	44	44	44	44	44	44	44

Compositors: Book and job

Atlanta	34.4	43.8	57.5	80.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Baltimore	37.5	54.2	81.3	83.3	90.9	90.9	90.9	90.9	90.9	90.9	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Birmingham	40.6	44.8	76.0	80.0	80.0	80.0	92.5	92.5	92.5	92.5	92.5	92.5	82.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	41.7	55.2	72.9	87.0	92.0	92.0	92.0	96.0	96.0	96.0	96.0	96.0	96.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Buffalo	39.6	59.4	71.9	90.9	90.9	90.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Charleston, S. C	33.3	37.5	37.5	98.9	84.1	90.9	84.1	84.1	84.1	84.1	84.1	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Chicago	46.9	75.0	95.8	106.0	115.9	115.9	115.9	122.7	122.7	122.7	129.5	129.5	129.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	40.6	51.0	75.0	104.5	109.1	109.1	109.1	113.6	113.6	115.9	118.2	118.2	118.2	48	48	48	44	44	44	44	44	44	44	44	44	40
Cleveland	39.6	62.5	87.5	93.8	100.0	104.5	106.8	109.1	109.1	111.4	111.4	111.4	104.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Dallas	52.1	70.8	88.5	93.2	93.2	93.2	93.2	93.2	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Denver	54.2	65.6	81.3	95.5	95.5	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	38.5	72.9	92.7	105.0	105.0	105.0	110.0	115.0	120.0	122.0	125.0	125.0	125.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Fall River	33.3	41.7	62.5	72.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	43.8	54.2	75.0	92.7	95.5	98.0	100.0	102.3	104.5	106.8	111.4	111.4	111.4	48	48	48	44	44	44	44	44	44	44	44	44	44
Jacksonville	37.5	52.1	75.0	81.8	81.8	81.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	41.7	54.2	72.9	84.4	92.0	94.3	96.6	98.9	100.0	102.3	102.3	102.3	95.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Little Rock	37.5	43.8	72.9	70.0	70.0	85.2	96.6	96.6	92.0	92.0	94.3	94.3	94.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Los Angeles	46.9	58.3	75.0	95.5	102.3	102.3	102.3	106.8	106.8	106.8	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Louisville	37.5	45.8	45.8	79.0	79.0	------	------	79.0	79.0	86.4	86.4	86.4	86.4	48	48	48	44	44	-----	-----	44	44	44	44	44	44
Manchester	35.4	41.7	66.7	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Memphis	40.0	55.4	93.8	82.3	82.3	80.0	80.0	81.8	81.8	81.8	81.8	81.8	81.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Milwaukee	41.7	54.2	72.9	93.2	93.2	93.2	95.5	100.0	102.3	102.3	104.5	106.8	96.3	48	48	48	44	44	44	44	44	44	44	44	44	40
Minneapolis	43.8	54.0	87.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Newark, N. J	47.9	72.9	91.7	102.3	115.9	115.9	118.2	120.5	122.7	125.0	127.3	129.5	129.5	48	48	48	44	44	44	44	44	44	44	44	44	44
New Haven	40.6	45.8	58.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	44	44	44	44	44	44	44	44	44	44

[16] 48 hours per week, October to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Compositors: Book and job—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
New Orleans	43.8	50.0	71.9	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	48	48	48	44	44	44	44	44	44	44	44	44	44
New York	50.0	75.0	93.8	113.6	120.5	120.5	122.7	125.0	127.3	129.5	131.8	134.1	136.4	48	48	48	44	44	44	44	44	44	44	44	44	44
Omaha	37.5	68.8	87.5	93.2	93.2	93.2	93.2	100.0	100.0	100.0	100.0	100.0	93.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Philadelphia	39.6	60.4	89.6	89.6	89.6	90.0	90.0	90.0	90.0	90.0	95.5	95.5	95.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Pittsburgh	39.6	60.4	81.3	100.0	100.0	100.0	100.0	104.5	104.5	104.5	106.8	113.6	113.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	53.1	75.0	85.4	95.8	90.9	102.3	102.3	105.7	105.7	105.7	105.7	105.7	95.1	48	48	48	44	44	44	44	44	44	44	44	44	44
Providence	37.5	50.0	72.9	79.5	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
St. Louis	43.8	52.7	79.2	92.8	98.0	98.0	98.0	103.0	103.0	103.0	103.0	103.0	103.0	48	48	48	44	44	44	44	44	44	44	44	44	44
St. Paul	43.8	54.0	83.3	95.5	95.5	95.5	95.5	-------	95.5	95.5	95.5	95.5	95.5	48	48	48	44	44	44	44	-----	44	44	44	44	44
Salt Lake City	62.5	71.9	87.5	96.9	96.9	104.3	104.3	-------	-------	-------	-------	-------	93.2	48	48	48	48	48	46	46	-----	-----	-----	-----	-----	44
San Francisco	50.0	62.5	81.3	104.5	104.5	115.9	115.9	115.9	115.9	115.9	118.2	118.2	118.2	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	43.8	52.1	71.9	85.2	90.9	100.0	100.0	102.3	104.5	104.5	104.5	104.5	104.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Seattle	53.1	75.0	87.5	93.8	93.8	93.8	93.8	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Washington	40.0	62.5	83.3	90.9	90.9	90.9	90.9	100.0	100.0	102.3	104.5	104.5	104.5	48	[17] 48	[17] 48	44	44	44	44	44	44	44	44	44	44

Compositors, daywork: Newspaper

Atlanta	43.8	60.6	63.8	86.5	93.8	93.8	100.0	100.0	100.0	103.1	103.1	103.1	103.1	48	48	48	48	48	48	48	48	48	48	48	48	48
Baltimore	50.0	65.5	93.3	95.5	106.8	106.8	110.2	110.2	110.2	114.8	114.8	114.8	114.8	42	42	45	44	44	44	44	44	44	44	44	44	44
Birmingham	52.5	67.5	67.5	82.5	82.5	82.5	92.5	95.0	97.5	100.0	102.5	102.5	95.0	[18]42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18]42
Boston	63.0	83.0	95.0	107.0	112.0	117.0	117.0	125.0	125.0	125.0	125.0	125.0	125.0	[19]42	[19] 42	[19] 42	[19] 44	[19] 44	[19] 44	[19] 44	[19] 44	[19] 44	[19] 44	[19] 44	[19] 44	[19]44
Buffalo	50.0	65.6	71.9	87.5	95.8	95.8	102.1	102.1	102.1	108.3	108.3	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Charleston, S. C	33.3	42.9	42.9	90.6	83.3	83.3	83.3	83.3	92.7	92.7	92.7	94.0	94.0	48	[18] 42	[18] 42	48	48	48	48	48	48	48	48	48	48
Chicago	62.0	79.0	89.0	115.0	129.0	129.0	129.0	135.6	138.0	140.0	140.0	140.0	140.0	[20]45	[18] 45	[18] 45	48	45	45	45	45	45	45	45	45	45
Cincinnati	52.1	87.5	107.3	107.3	113.3	113.8	113.8	113.8	118.3	118.3	122.8	122.8	122.8	47⅔	48	45	45	45	45	45	45	45	45	45	45	37½
Cleveland	53.8	68.8	87.5	96.9	107.3	107.3	116.7	116.7	119.0	119.0	119.0	119.0	119.0	48	48	48	48	48	48	48	45	45	45	45	45	55
Dallas	55.0	76.0	88.5	90.6	100.0	100.0	106.3	106.3	106.3	106.3	106.3	106.3	106.3	48	48	48	48	48	48	48	48	48	48	48	48	48

Denver	63.3	72.7	97.8	93.3	103.3	103.3	103.3	103.3	110.6	114.8	119.9	119.9	119.9	45	45	45	45	45	45	45	45	44	44	44	44	
Detroit	55.0	74.5	87.0	97.0	113.0	113.0	120.0	125.0	125.0	130.0	131.0	131.0	126.0	[22]48	[22] 48	[22] 48	48	48	48	[23] 48	45	45	45	45	45	45
Fall River	37.5	49.0	75.0	79.2	87.5	87.5	87.5	87.5	87.5	87.5	95.8	95.8	95.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	60.4	81.3	89.6	100.0	100.0	104.2	106.3	106.3	110.9	110.9	110.9	110.9	48	48	48	48	48	48	48	48	48	46	46	46	46
Jacksonville	37.5	65.6	83.3	83.3	83.3	89.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Kansas City, Mo	59.5	68.8	90.6	90.6	90.6	95.8	102.1	104.2	104.2	108.3	108.3	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	47.9	62.5	72.9	83.3	83.3	84.4	84.4	84.4	87.5	91.3	95.5	95.5	94.0	48	48	48	48	48	48	48	48	46	44	44	42	
Los Angeles	62.5	75.6	86.7	101.1	107.8	------	------	114.0	117.8	117.8	117.8	117.8	117.8	45	45	45	45	45	----	----	45	45	45	45	45	45
Louisville	49.0	62.5	87.5	87.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	41.7	66.7	72.9	80.2	82.3	83.3	83.3	83.3	83.3	88.9	88.9	88.9	48	48	48	48	48	48	48	48	48	48	45	45	45
Memphis	57.8	66.7	86.7	88.9	93.3	83.3	93.3	100.0	100.0	100.0	100.0	100.0	93.0	45	[18] 45	[18] 45	[18] 45	[18] 45	48	45	45	45	45	45	45	45
Milwaukee	45.8	56.3	77.1	93.8	97.9	102.5	102.5	106.3	106.3	110.4	117.8	117.8	117.8	48	48	48	48	48	48	48	48	48	48	45	45	45
Minneapolis	54.0	62.5	87.5	88.5	97.9	98.0	98.0	97.9	121.4	121.4	121.4	123.8	123.8	48	48	48	48	48	48	48	48	42	42	42	42	42
Newark, N.J.	60.9	76.1	89.1	110.9	110.9	119.6	121.7	130.4	132.6	134.8	134.8	134.8	134.8	46	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	50.0	72.9	79.2	85.4	85.4	87.5	89.6	89.6	91.7	93.8	95.8	95.8	48	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	96.7	122.2	122.2	128.9	133.3	133.3	140.0	142.2	144.4	144.4	144.4	144.4	45	45	45	45	45	45	45	45	45	45	44	[24] 32	
Omaha	50.0	68.8	87.5	87.5	90.6	90.6	90.6	96.9	97.9	99.0	100.0	100.0	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	41.7	66.7	81.3	79.2	87.5	87.5	87.5	91.3	91.3	91.3	91.3	91.3	91.3	48	48	48	48	48	48	48	46	46	46	46	46	46
Pittsburgh	55.0	77.0	87.5	111.8	121.1	121.1	125.6	126.7	126.7	126.7	128.9	128.9	121.1	48	[18] 45	48	46½	45	45	45	45	45	45	45	45	45
Portland, Oreg	68.3	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	113.3	113.3	113.3	106.7	45	45	45	45	45	45	45	45	45	45	45	45	48
Providence	47.9	66.7	87.5	95.8	104.2	104.2	104.2	108.3	108.3	108.3	112.5	116.7	118.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Richmond, Va	33.3	45.8	58.3	87.5	87.5	87.5	94.8	94.8	94.8	94.8	94.8	94.8	87.5	48	48	48	48	48	48	48	48	48	48	48	48	45
St. Louis	58.7	63.4	91.3	91.3	102.2	106.5	110.9	110.9	114.1	114.1	120.7	120.7	120.7	46	46	46	46	46	46	46	46	46	46	46	46	46
St. Paul	54.5	63.0	87.5	88.8	93.8	101.3	101.3	101.3	101.3	101.3	101.3	101.3	101.3	48	[23] 48	[23] 48	[23] 48	[23] 48	[23] 48	[23] 48	48	48	48	48	48	48
Salt Lake City	62.5	71.9	87.5	96.9	96.9	104.3	104.3	104.3	104.3	104.3	104.3	104.3	104.3	48	48	48	48	48	46	46	46	46	46	46	46	46
San Francisco	64.4	75.6	93.3	107.8	107.8	115.6	115.6	115.6	120.0	120.0	120.0	120.0	120.0	45	45	45	45	45	45	45	45	45	45	45	45	45
Scranton	47.9	60.4	81.3	87.5	95.8	104.2	110.4	112.5	114.9	114.9	114.9	114.9	114.9	48	48	48	48	48	48	48	48	47	47	47	47	47
Seattle	75.0	100.0	114.3	114.3	121.4	121.4	121.4	123.2	123.2	123.2	123.2	123.2	123.2	42	42	42	42	42	42	42	42	42	42	42	42	42
Washington	60.7	92.9	104.0	104.0	110.0	110.0	128.6	128.6	128.6	128.6	128.6	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42	42

[17] 44 hours per week for 3 of the months between June and Sept. 30.
[18] Minimum; maximum, 8 hours per day.
[19] Actual hours worked; minimum, 6; maximum, 8 hours per day.
[20] Actual hours worked; minimum, 7; maximum, 8 hours per day.
[22] Maximum; minimum, 7 hours per day.
[23] Maximum; minimum, 45 hours per week.
[24] Work 4 days per week.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Electrotypers: Finishers

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlanta	45.8	57.3	88.5	93.2	96.6	102.3	102.3	102.3	96.6	96.6	96.6	102.3	102.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Baltimore	41.7	50.0	81.3	----	----	87.5	87.5	----	----	----	----	90.3 96.8	90.3	48	48	48	----	----	48	48	----	----	----	----	----	46½	46½
Birmingham	50.0	50.0	72.9	89.8	96.6	96.6	102.3	102.3	102.3	105.7	105.7	108.0	108.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	50.0	52.5	78.1	90.6	99.0	99.0	99.0	99.0	99.0	99.0	104.2 105.7	104.2 104.5	104.2 104.5	48	48	48	48	48	48	48	48	48	48	48 44	48 44	48 44
Buffalo	43.8	56.3	72.9	77.1	81.3	87.5	87.5	91.7	93.8	93.8	97.9	109.1	109.1	48	48	48	48	48	48	48	48	48	48	[25]48	[26]44	[27]44
Chicago	49.0	77.1	104.2	108.0	134.1	138.6	140.9	140.9	140.9	145.5	150.0	150.0	150.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	43.8	52.1	66.7	95.5	89.6	91.7	91.7	95.8	97.9	97.9	100.0	116.7	113.6	48	48	48	44	48	48	48	48	48	48	48	42	44
Cleveland	41.7	58.3	83.3	75.0	93.8	93.8	93.8	97.9	100.0	104.3	111.4	113.6	113.6	48	48	48	48	48	48	48	48	48	46	44	44	44
Dallas	37.5	65.6	72.9	----	----	113.6	113.6	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	----	----	44	44	44	44	44	44	44	44
Denver	43.8	54.2	62.5	75.0	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	37.5	56.3	93.8	102.3	113.6	113.6	113.6	125.0	125.0	125.0	127.3	131.8	131.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	43.8	63.6	63.6	85.2	95.5	95.5	95.5	95.5	100.0	100.0	104.5	106.8	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	43.8	62.5	90.6	89.6	100.0	104.5	104.5	104.5	104.5	104.5	109.1	109.1	98.7	48	48	48	48	46	44	44	44	44	44	44	44	44
Los Angeles	50.0	70.8	86.4	86.4	102.3	102.3	102.3	113.6	113.6	113.6	104.2	104.2	104.2	48	48	44	44	44	44	44	44	48	44	48	48	48
Louisville	----	----	----	----	----	73.9	102.3	102.3	102.3	96.6	102.3	90.9	79.5	----	----	----	----	----	44	44	44	44	44	44	44	44
Memphis	45.8	62.5	62.5	----	----	100.0	102.3	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	----	----	44	44	44	44	44	44	44	44
Milwaukee	43.8	56.3	75.0	81.3	93.8	93.8	93.8	93.8	93.8	93.8	102.3	113.6	113.6	48	48	48	48	48	48	48	48	48	48	44	44	44
Minneapolis	36.1	59.4	81.3	91.7	95.8	95.8	95.8	97.9	97.9	97.9	100.0	100.0	104.3	54	48	48	48	48	48	48	48	48	48	48	48	46
Newark, N.J.	----	75.0	109.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	150.0	150.0	----	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	37.4	46.7	62.5	75.0	79.5	79.5	79.5	----	----	----	----	84.2	84.2	54	53½	48	48	48	48	48	----	----	----	----	47½	47½
New Orleans	----	55.0	88.9	90.9	----	90.9	102.3	102.3	----	----	----	----	83.3	----	[18]45	[18]45	44	----	44	44	44	----	----	----	----	48
New York	62.5	75.0	109.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	66.7	113.6	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	41.7	70.0	103.1	113.6	125.0	114.6	114.6	118.8	118.8	118.8	131.8	134.1	134.1	48	48	48	44	44	48	48	48	48	48	44	44	44
Pittsburgh	43.8	45.8	85.4	79.2	91.7	91.7	91.7	93.8	93.8	93.8	93.8	104.2	113.6	48	48	48	48	48	48	48	48	48	48	48	48	44
Portland, Oreg	50.0	90.9	104.5	104.5	111.4	114.8	114.8	119.3	119.3	119.3	119.3	119.3	107.4	48	44	44	44	44	44	44	44	44	44	44	44	44
Richmond	----	60.4	78.1	93.8	104.2	104.2	104.2	----	----	----	----	104.2	104.2	----	48	48	48	48	48	48	48	----	----	----	48	48
St. Louis	45.8	55.0	85.4	89.6	102.2	109.1	111.4	113.6	113.6	115.9	118.2	118.2	118.2	48	48	48	48	46½	44	44	44	44	44	44	44	44
St. Paul	43.8	59.4	81.3	91.7	95.8	95.8	95.8	97.9	97.9	97.9	100.0	100.0	104.3	48	48	48	48	48	48	48	48	48	48	48	48	46
San Francisco	56.3	62.5	79.2	113.6	113.6	125.0	125.0	125.0	125.0	125.0	125.0	125.0	113.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	41.7	50.0	75.0	90.9	97.7	97.7	102.3	102.3	106.8	106.8	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Seattle	52.1	77.8	104.5	104.5	113.6	118.2	118.2	119.3	119.3	119.3	119.3	118.2	118.2	48	45	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	58.3	93.8	90.9	102.3	102.3	113.6	113.6	113.6	113.6	118.2	122.7	122.7	44	48	48	44	44	44	44	44	44	44	44	44	44

Electrotypers: Molders

Electrotypers: Molders

Atlanta	45.8	57.3	88.5	90.9	96.6	96.6	102.3	102.3	96.6	96.6	96.6	102.3	102.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Baltimore	43.8	54.2	83.3	-------	-------	87.5	87.5	-------	-------	-------	-------	90.3 96.8	90.3	48	48	48	-----	-----	48	48	-----	-----	-----	-----	46½	46½
Birmingham	50.0	50.0	72.9	89.8	96.6	96.6	102.3	102.3	102.3	105.7	105.7	108.0	108.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	50.0	52.5	78.1	90.6	99.0	99.0	99.0	99.0	99.0	99.0	104.2 105.7	104.2 104.5	104.2 104.5	48	48	48	48	48	48	48	48	48	48	48 44	48 44	48 44
Buffalo	43.8	56.3	72.9	77.1	81.3	87.5	87.5	91.7	93.8	93.8	97.9	109.1	109.1	48	48	48	48	48	48	48	48	48	[25] 48	[26]44	[27]44
Chicago	54.2	77.1	104.2	108.0	134.1	138.6	140.9	140.9	140.9	145.5	150.0	150.0	150.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	47.9	52.1	70.8	95.5	89.6	91.7	91.7	95.8	97.9	97.9	100.0	116.7	113.6	48	48	48	44	48	48	48	48	48	48	48	42	44
Cleveland	43.8	60.4	83.3	75.0	93.8	93.8	93.8	97.0	100.0	104.3	111.4	113.6	113.6	48	48	48	48	48	48	48	48	46	44	44	44	44
Dallas	43.8	65.6	72.9	-------	-------	113.6	113.6	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	-----	-----	44	44	44	44	44	44	44	44
Denver	52.1	60.4	69.8	79.5	98.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	37.5	56.3	93.8	102.3	113.6	113.6	113.6	125.0	125.0	125.0	127.3	131.8	131.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	45.8	65.9	65.9	85.2	95.5	95.5	95.5	95.5	100.0	100.0	104.5	106.8	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	43.8	62.5	90.6	95.8	100.0	104.5	104.5	104.5	104.5	104.5	109.1	113.6	98.7	48	48	48	48	46	44	44	44	44	44	44	44	44
Los Angeles	50.0	70.8	86.4	86.4	102.3	102.3	102.3	113.6	125.0	113.6	104.2	104.2	104.2	48	48	44	44	44	44	44	44	48	44	48	48	48
Louisville	-----	-----	-----	-------	-------	73.9	102.3	102.3	102.3	96.6	102.3	90.9	90.9	-----	-----	-----	-----	-----	44	44	44	44	44	44	44	44
Memphis	45.8	62.5	62.5	-------	-------	100.0	102.3	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	-----	-----	44	44	44	44	44	44	44	44
Milwaukee	43.8	56.3	75.0	81.3	93.8	93.8	93.8	93.8	93.8	93.8	102.3	113.6	113.6	48	48	48	48	48	48	48	48	48	44	44	44	44
Minneapolis	36.1	59.4	81.3	91.7	95.8	95.8	95.8	97.9	97.9	97.9	100.0	100.0	104.3	54	48	48	48	48	48	48	48	48	48	48	48	46
Newark, N.J.	-----	75.0	109.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	150.0	150.0	-----	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	37.4	46.7	62.5	75.0	79.5	79.5	79.5	-------	-------	-------	-------	84.2	84.2	54	53½	48	48	48	48	48	-----	-----	-----	-----	47½	47½
New Orleans	-----	55.0	88.9	90.9	-------	90.9	102.3	-------	-------	-------	-------	-------	83.3	-----	[18]45	[18] 45	44	-----	44	44	-----	-----	-----	-----	-----	48
New York	62.5	75.0	109.0	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	66.7	113.6	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.8	70.0	113.1	113.6	125.0	114.6	114.6	118.8	118.8	118.8	131.8	134.1	134.1	48	48	44	44	44	48	48	48	48	44	44	44	44
Pittsburgh	50.0	53.1	87.5	79.2	91.7	91.7	91.7	93.8	93.8	93.8	93.8	104.2	113.6	48	48	48	48	48	48	48	48	48	48	48	48	44
Portland, Oreg.	50.0	90.9	104.5	104.5	111.4	114.8	114.8	119.3	119.3	119.3	119.3	119.3	107.4	48	48	44	44	44	44	44	44	44	44	44	44	44
Richmond	-----	60.4	78.1	93.8	104.2	104.2	104.2	-------	-------	-------	-------	104.2	104.2	-----	48	48	48	48	48	48	-----	-----	-----	-----	48	48
St. Louis	47.9	57.3	85.4	89.6	102.2	109.1	111.4	113.6	113.6	115.9	118.2	118.2	118.2	48	48	48	48	46½	44	44	44	44	44	44	44	44
St. Paul	50.0	59.4	81.3	91.7	95.8	95.8	95.8	97.9	97.9	97.9	100.0	100.0	104.3	48	48	48	48	48	48	48	48	48	48	48	48	46
San Francisco	56.3	62.5	79.2	113.6	113.6	125.0	125.0	125.0	125.0	125.0	125.0	125.0	113.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	47.9	56.3	75.0	90.9	97.7	97.7	102.3	102.3	106.8	106.8	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Seattle	52.1	77.8	104.5	104.5	113.6	118.2	118.2	119.3	119.3	119.3	119.3	118.2	118.2	48	45	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	58.3	93.8	90.9	102.3	102.3	113.6	113.6	113.6	113.6	118.2	122.7	122.7	44	48	48	44	44	44	44	44	44	44	44	44	44

[18] Minimum; maximum, 8 hours per day.
[25] 44 hours per week, June to September, inclusive.
[27] 48 hours and same pay per week, November to February, inclusive.
[26] 48 hours and same pay per week, November to April, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Granite cutters, inside

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Baltimore	50.0	75.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	118.8	118.8	118.8	100.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Boston	45.6	75.0	100.0	100.0	100.0	100.0	110.0	112.5	112.5	118.0	124.0	124.0	115.0	44	44	44	44	44	44	44	44	44	44	[28] 44	[28] 44	[28] 44
Buffalo	43.8	75.0	100.0	100.0	100.0	106.3	106.3	112.5	112.5	118.8	118.8	118.8	118.8	44	44	44	44	44	[29] 44	[29] 44	[29] 44	[29] 44	40	40	40	40
Charleston, S. C	45.0	69.0	87.5	100.0	100.0	100.0	100.0	100.0	105.0	105.0	105.0	105.0	105.0	44	44	44	40	44	44	44	44	40	44	[30] 44	[30] 44	44
Chicago	50.0	76.3	86.3	112.5	112.5	------	------	------	------	------	------	150.0	132.5	44	44	44	40	[29] 44	------	------	------	------	------	------	40	40
Cleveland	50.0	81.3	100.0	100.0	106.3	115.6	115.6	115.6	115.6	118.8	125.0	125.0	118.8	44	44	44	40	[29] 44	[29] 44	[29] 44	[29] 44	[29] 44	[31] 44	[31] 44	[31] 44	[31] 44
Dallas	------	81.3	100.0	100.0	100.0	106.3	106.3	106.3	106.3	112.5	125.0	------	112.5	------	44	44	44	44	44	[30] 44	[30] 44	44	44	44	------	40
Denver	57.0	85.0	100.0	106.3	106.3	106.3	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	44
Los Angeles	62.5	87.5	100.0	112.5	112.5	------	------	112.5	112.5	112.5	112.5	112.5	106.3	48	44	44	44	44	------	------	44	44	44	44	40	40
Manchester	40.6	72.5	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	[32] 44	[32] 44	44
Minneapolis	------	------	------	------	------	100.0	------	------	------	------	------	100.0	100.0	------	------	------	------	------	44	------	------	------	------	------	44	44
New Haven	41.0	72.5	87.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	[33] 44	[33] 44	[33] 44	[33] 44	40
New Orleans	45.0	75.0	80.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	100.0	45	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	79.0	100.0	112.5	112.5	112.5	137.5	137.5	137.5	137.5	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Philadelphia	50.0	80.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	[2] 44	[2] 44	[2] 44
Pittsburgh	50.0	81.3	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	------	------	------	------	------	------	------	112.5	112.5	112.5	112.5	112.5	112.5	------	------	------	------	------	------	------	44	44	[34] 44	[34] 44	[34] 44	[34] 44
Providence	40.6	70.0	70.0	100.0	100.0	100.0	110.0	110.0	115.0	115.0	115.0	115.0	100.0	44	44	44	44	[35] 44	[30] 44	44	44	44	44	40	40	40
Richmond, Va	43.8	70.0	82.5	100.0	100.0	100.0	112.5	112.5	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	50.0	75.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	100.0	44	44	44	44	[36] 44	44	44	44	44	44	44	44	[28] 44
St. Paul, Minn	------	------	------	------	------	------	------	100.0	100.0	------	------	100.0	100.0	------	------	------	------	------	------	------	44	44	------	------	44	44
Salt Lake City	62.5	81.3	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	100.0	112.5	112.5	112.5	113.8	118.8	112.5	112.5	112.5	------	106.3	44	44	44	44	44	44	44	44	44	44	44	------	40
Scranton	------	------	------	------	------	------	------	------	------	125.0	125.0	125.0	112.5	------	------	------	------	------	------	------	------	------	44	44	44	44
Seattle	62.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	40	40	[30] 44	44	[30] 44	44	[30] 44	[30] 44	[30] 44	[30] 44
Washington	45.0	87.5	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40

Hod carriers

Baltimore	31.3	75.0	87.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	------	------	75.0	[37] 45	44	44	44	44	44	44	44	44	40	------	------	40
Boston	35.0	50.0	70.0	70.0	70.0	70.0	79.0	79.0	79.0	85.0	85.0	85.0	70.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Chicago	40.0	57.5	100.0	72.5	72.5	82.5	87.5	90.0	90.0	90.0	97.5	97.5	82.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	42.5	65.0 57.5	85.0	72.5	90.0	92.5	95.0	97.5	97.5	97.5	100.0	100.0	70.0	45	45	45	45	45	45	45	45	45	45	45	40	40
Cleveland	31.3	57.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	72.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Denver	37.5 40.6	65.6	75.0 78.1	75.0 78.1	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	75.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Detroit	35.0	65.0	100.0	75.0	75.0	75.0	75.0	------	------	------	------	65.0	60.0	48	44	44	44	49½	44	44	------	------	------	------	48	44
Indianapolis	40.0 42.5	55.0	72.5 75.0	67.5 70.0	82.5 87.5	82.5	82.5	87.5 92.5	87.5 100.0	92.5	95.0	82.5	76.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Kansas City, Mo	37.5	62.5	90.0	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	99.0	80.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Los Angeles	30.4 40.6	53.1	75.0	------	------	------	------	------	------	------	112.5	------	87.5	44	44	44	------	------	------	------	------	------	------	40	------	40
Louisville	35.0 38.0	50.0	55.0	80.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	65.0	50.0	48	50	44	44	44	44	44	44	44	44	40	40	40
Memphis	30.0	50.0	75.0	62.5	75.0	62.5	62.5	62.5	62.5	62.5	62.5	62.5	50.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Minneapolis	------	------	------	------	------	------	------	------	------	------	------	------	85.0	------	------	------	------	------	------	------	------	------	------	------	------	44
Newark, N.J.	35.0	50.0	87.5	75.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	125.0	95.0	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	28.0	------	------	------	65.0	65.0	67.5	75.0	75.0	75.0	85.0	75.0	65.0	44	------	------	------	44	44	44	44	44	44	44	40	40
New York	37.5	50.0	87.5	------	70.0	100.0	112.5	112.5	112.5	112.5 118.8	123.8	123.8	100.0	44	44	44	------	44	44	44	44	44	40	40	40	40
Philadelphia	35.0	70.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0 85.0	100.0 85.0	85.0	85.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	25.0 40.0	60.0	90.0	80.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44 49	44	44	44	44	44	44	44	44	44	44	40	40
Portland, Oreg	50.0	75.0	93.8	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	90.0	48	44	44	44	44	44	44	44	44	44	40	40	40
St. Louis	42.5 45.0	62.5 65.0	70.0	85.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	100.0	44	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	------	60.0	80.0	75.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	------	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	37.5 50.0	62.5 68.8	87.5 93.8	75.0 81.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	81.3	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	50.0	75.0	93.8	71.3	77.2	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	44	44	44	46⅓	46⅓	44	44	44	44	44	40	40	40
Scranton	30.0	50.0	58.5	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	43.8	75.0	75.0	------	------	------	------	------	87.5	87.5	87.5	87.5	70.0	44	40	40	------	------	------	------	------	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40
Washington	23.1 28.1	62.5	75.0	75.0	75.0	75.0	75.0	75.0	------	------	------	------	75.0	[13] 45	[13] 45	44	44	44	44	44	44	------	------	------	------	40

[2] 40 hours per week, June to August, inclusive.
[12] 44 hours per week, September to April, inclusive.
[13] 44½ hours per week, October to April, inclusive.
[26] 40 hours per week, July to March, inclusive.
[29] 40 hours per week, November to March, inclusive.
[30] 40 hours per week, October to March, inclusive.
[31] 40 hours per week, June to February, inclusive.
[32] 40 hours per week, Nov. 16 to Mar. 15.
[33] 40 hours per week, November to February, inclusive.
[34] 40 hours per week, January, February, June to August, inclusive, and December.
[35] 40 hours per week, November to April, inclusive.
[36] 40 hours per week, Nov. 16 to Apr. 15.
[37] 44 hours per week, November to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Inside wiremen

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlanta	------	75.0	90.0	90.0	90.0	90.0	90.0	90.0	100.0	112.5	112.5	112.5	112.5	-----	44	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	43.8	70.0	92.5	100.0	120.0	131.3	131.3	143.8	143.8	150.0	165.0	165.0	100.0 165.0	48	44	44	44	44	44	44	44	44	40	40	40	40	40
Birmingham	62.5	80.0	100.0	85.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Boston	55.0	77.5	100.0	100.0	110.0	110.0	120.0	125.0	125.0	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Buffalo	45.0	70.0	90.0	90.0	112.5	112.5	125.0	125.0	137.5	137.5	137.5	150.0	130.0	48	44	44	44	44	44	44	44	44	44	44	44	40	40
Chicago	75.0	87.5	125.0	110.0	125.0	150.0	150.0	156.3	162.5	162.5	162.5	162.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	50.0	71.9	100.0	95.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	140.0	125.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	40
Cleveland	57.5	90.0	125.0	110.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	56.3	87.5	100.0	112.5	112.5	125.0	125.0	125.0	125.0	137.5	137.5	137.5	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Denver	56.3	82.5	100.0	100.0	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Detroit	46.9	93.8	125.0	100.0	125.0	130.0	140.0	150.0	150.0	150.0	155.0	155.0	140.0	48	44	44	44	44	44	44	44	44	44	40	40	40	40
Fall River	37.5	70.0	85.0	85.0	95.0	95.0	95.0	95.0	100.0	100.0	100.0	100.0	90.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	72.0	100.0	100.0	115.0	125.0	125.0	137.5	150.0	150.0	150.0	125.0	125.0	[2][3]48	44	44	44	44	44	44	44	44	44	44	44	40	40
Jacksonville	45.0	85.0	100.0	85.0	85.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	110.0 100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Kansas City, Mo	62.5	87.5	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	50.0	75.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	[3]48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	80.0	100.0	100.0	112.5	112.5	112.5	112.5	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	75.0	75.0	90.0	100.0	106.3	106.3	115.0	125.0	131.3	131.3	131.3	100.0	48	44	44	44	44	44	44	44	44	44	44	44	40	40
Manchester	31.3	75.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.0	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Memphis	45.0	75.0	100.0	87.5	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	100.0	48	44	44	44	44	44	44	44	44	44	44	40	40	40
Milwaukee	45.0	75.0	85.0	100.0	112.5	112.5	112.5	112.5	120.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40	40
Minneapolis	50.0	68.8	81.3	87.5	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	56.3	75.0	100.0	112.5	131.3	131.3	150.0	156.3	156.3	162.5	162.5	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	40	40
New Haven	------	75.0	82.5	85.0	100.0	100.0	100.0	100.0	106.3	106.3	112.5	125.0	112.5	-----	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	45.0	70.0	90.0	100.0	105.0	110.0	110.0	120.0	125.0	125.0	125.0	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44	44
New York	56.3	75.0	112.5	112.5	131.3	131.3	150.0	150.0	150.0	165.0	165.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Omaha	50.0	87.5	112.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	75.0	100.0	90.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	150.0	150.0	44	44	44	44	44	44	[2]44	[2]44	[2]44	40	40	40	40	40
Pittsburgh	57.5	75.0	100.0	112.5	125.0	143.8	143.8	150.0	156.3	156.3	156.3	156.3	156.3	48	44	44	44	44	44	44	44	44	44	40	40	40	40
Portland, Oreg	56.3	80.0	100.0	90.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	40	40	40	40	40	40	40	40

Providence	43.8	70.0	85.0	90.0	100.0	100.0	100.0	110.0	110.0	110.0	110.0	110.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va	43.8	75.0	75.0	75.0	75.0	75.0	------	------	------	87.5	87.5	87.5	80.0	48	44	44	44	44	44	------	------	------	44	44	44	40
St. Louis	65.0	87.5	100.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	165.0	165.0	167.5	44	44	44	44	44	44	44	44	40	40	40	40	40
St. Paul	46.9	68.8	81.3	80.0	100.0	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	87.5	112.5	90.0	------	------	------	------	112.5	112.5	112.5	112.5	100.0	44	44	44	44	------	------	------	------	44	44	44	44	44
San Francisco	62.5	87.5	112.5	100.0	100.0	100.0	106.3	112.5	112.5	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Scranton	46.9	75.0	95.0	87.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	100.0	112.5	100.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	112.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Washington	55.0	100.0	100.0	106.3	125.0	137.5	137.5	137.5	137.5	150.0	150.0	165.0	165.0	44	44	44	44	44	44	44	44	40	40	40	40	40

Painters

Atlanta	33.3	60.0	60.0	75.0	75.0	75.0	80.0	85.0	85.0	85.0	85.0	85.0	85.0	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	37.5	68.8	90.0	80.0	90.0	100.0	100.0	100.0	100.0	110.0	110.0	112.5	100.0	48	44	44	44	44	44	44	44	40	40	40	40	40
Birmingham	45.0	75.0	87.5	75.0	87.5	100.0	100.0	112.5	100.0	100.0	100.0	100.0	75.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Boston	50.0	82.5	100.0	100.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	137.5	112.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	43.8	62.5	87.5	87.5	87.5	100.0	100.0	112.5	112.5	112.5	125.0	125.0	100.0	48	[39] 48	[39] 48	[39] 48	44	44	44	44	44	44	40	44	40
Charleston, S. C	25.0	50.0 65.0	65.0 80.0	50.0 65.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0 75.0	55.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Chicago	65.0	87.5	125.0	110.0	125.0	150.0	150.0	150.0	162.5	162.5	175.0	175.0	141.0	44	44	44	44	44	44	44	44	40	40	40	40	40
Cincinnati	50.0	62.5	87.5	87.5	107.5	117.5	125.0	131.3	131.3	131.3	133.8	133.8	110.0	44	44	44	44	44	44	44	44	40	40	40	40	40
Cleveland	50.0	75.0	112.5	100.0	125.0	125.0	[14]125.0	125.0	125.0	125.0	131.3	137.5	112.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	50.0	87.5	100.0	87.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Denver	50.0	85.0	100.0	100.0	112.5	117.5	115.0	125.0	125.0	125.0	125.0	125.0	109.4	44	44	44	44	44	44	44	44	40	40	40	40	40
Detroit	45.0	80.0	100.0	90.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	37.5	62.5	100.0	75.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	75.0	75.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	70.0	100.0	90.0	105.0	105.0	110.0	115.0	122.5	122.5	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Jacksonville	37.5	75.0	87.5	75.0	------	75.0	100.0	100.0	75.0	75.0 62.5	75.0 50.0	75.0	75.0	48	44	44	44	-----	44	44	44	44	44	44	44	44
Kansas City, Mo	60.0	82.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	50.0	80.0	100.0	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	43.8	75.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Louisville	45.0	62.5	75.0	87.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	90.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Manchester	------	62.5	80.0	70.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	-----	44	44	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[14] Old scale; strike pending at time of report.
[25] 44 hours per week, June to September, inclusive.
[38] 44 hours per week, July to September, inclusive.
[39] 44 hours per week, July to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Painters—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Memphis	50.0	75.0	100.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	75.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Milwaukee	50.0	70.0	85.0	85.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Minneapolis	50.0	70.0	100.0	80.0	90.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	87.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Newark, N. J.	44.0	75.0	100.0	100.0	125.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	131.3	44	44	44	44	40	40	40	40	40	40	40	40	40
New Haven	40.9	62.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	106.3	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	40.0	65.0	75.0	80.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	48	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	75.0	112.5	112.5	131.3	131.3	150.0	175.0 / 150.0	150.0	150.0	165.0 / 150.0	165.0 / 150.0	140.0 / 125.0 / 100.0	44	44	40	40	40	40	40	40	40	40	40	40	40
Omaha	50.0	75.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Philadelphia	42.5	75.0	100.0	100.0	100.0	100.0	[13]100.0	105.0	105.0	105.0	105.0	112.5	100.0	44	44	40	44	44	44	44	44	44	44	44	[2] 44	[2] 44
Pittsburgh	55.0	87.5	112.5	100.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	150.0	127.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Portland, Oreg.	50.0	90.0	100.0	90.0	100.0	100.0	112.5	112.5	105.0	105.0	110.0	110.0	88.0	48	44	44	44	44	40	40	40	40	40	40	40	40
Providence	45.5	62.5	90.0	80.0	100.0	100.0	106.3	106.3	106.3	106.3	112.5	112.5	90.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Richmond, Va.	37.5	60.0	65.0	67.5	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	48	48	48	48	48	48	48	44	44	44	44	44	44
St. Louis	57.0	75.0	100.0	100.0	130.0	130.0	135.0	143.8	143.8	143.8	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	50.0	70.0	100.0	80.0	90.0	90.0	95.0	95.0	95.0	100.0	100.0	100.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	90.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	44	44	44	44	44	44	44	44	44	44	44	40	44
San Francisco	56.3	87.5	106.3	100.0	104.4	104.4	100.0 / 104.4	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Scranton	40.0	65.0	87.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	[14]112.5	48	44	44	44	40	40	40	40	40	40	40	40	40
Seattle	56.3	90.0	100.0	93.8	105.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	95.6	44	40	40	40	40	40	40	40	40	40	40	40	40
Washington	50.0	75.0	90.0	100.0	112.5	118.8	118.8	118.8	121.9	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	40	40

Plasterers

Atlanta	45.0	60.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	100.0	100.0	53	49½	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	87.5	112.5	125.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	125.0	44	44	44	44	44	44	44	40	40	40	40	40	40
Birmingham	62.5	75.0	75.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	-------	100.0	44	44	44	44	44	44	44	44	44	44	40	----	40
Boston	65.0	80.0	100.0	112.5	125.0	125.0	150.0	150.0	150.0	150.0	162.5	162.5	137.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	60.0	85.0	100.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0	162.5	162.5	162.5	48	44	[40]40	40	40	40	40	40	40	40	40	40	40
Charleston, S. C	40.0	75.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	[41]53	48	48	48	48	44	44	44	44	44	44	44	44
Chicago	75.0	87.5	125.0	110.0	150.0	150.0	[14]150.0	162.5	162.5	162.5	170.0	170.0	137.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Cincinnati	68.8	87.5	100.0	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	162.5	137.5	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	40	40	40
Cleveland	62.5	90.0	125.0	125.0	125.0	156.3	162.5	162.5	162.5	162.5	162.5	162.5	137.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	75.0	112.5	112.5	137.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5	125.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Denver	75.0	87.5	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	131.3	44	44	44	44	44	44	44	44	44	44	40	40	40
Detroit	68.8	87.5	125.0	112.5	156.3	156.3	156.3	162.5	162.5	162.5	162.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	55.0	85.0	115.0	95.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Indianapolis	62.5	87.5	100.0	112.5	150.0	150.0	150.0	155.0	157.5	157.5	157.5	157.5	132.5	44½	44½	44	44	44	44	44	44	44	40	40	40	40
Jacksonville	56.3	75.0	87.5	87.5	125.0	125.0	175.0	175.0	125.0	125.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	75.0	100.0	120.0	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	162.5	132.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Little Rock	62.5	87.5	112.5	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	125.0	48	[16]44	44	44	44	44	44	44	44	44	44	44	40
Los Angeles	75.0	87.5	112.5	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	112.5	44	44	44	40	44	44	44	44	44	40	40	40	40
Louisville	65.0	75.0	100.0	112.5	150.0	150.0	162.5	162.5	162.5	162.5	162.5	162.5	143.8	44	44	44	44	44	44	44	44	44	40	40	40	40
Manchester	50.0	90.0	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	40	40	40	40
Memphis	75.0	87.5	100.0	112.5	137.5	156.3	156.3	156.3	156.3	156.3	156.3	156.3	125.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Milwaukee	65.0	87.5	87.5	112.5	125.0	137.5	137.5	143.8	150.0	150.0	150.0	150.0	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Minneapolis	70.0	90.0	112.5	100.0	125.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	65.0	87.5	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	193.8	168.8	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	60.0	82.5	100.0	100.0	125.0	125.0	137.5	137.5	143.8	150.0	150.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	62.5	75.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	48	45	45	45	45	44	45	44	45	45	45	45	45
New York	68.8	93.8	110.8	125.0	150.0	150.0	175.0	175.0	175.0	175.0	192.5	192.5	150.0	44	44	44	44	44	44	40	40	40	40	40	40	40
Omaha	75.0	87.5	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	-------	-------	100.0	44	44	44	44	44	44	44	44	44	44	----	----	44
Philadelphia	62.5	80.0	125.0	125.0	150.0	150.0	175.0	175.0	175.0	150.0	162.5	162.5	162.5	44	40	40	40	40	40	40	40	40	40	40	40	[8]24
Pittsburgh	62.5	85.0	115.0	112.5	156.3	156.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	44	44	44	44	44	44	40	40	40	40	40	40	40

[2] 40 hours per week, June to August, inclusive.
[8] Work 3 days per week.
[14] Old scale; strike pending at time of report.
[16] 48 hours per week, October to March, inclusive.
[40]44 hours per week, Nov. 14 to May 14.
[41]Work 53 hours; paid for 54.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Plasterers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Portland, Oreg	75.0	110.0	112.5	112.5	125.0	137.5	137.5	137.5	150.0	150.0	150.0	150.0	120.0	44	44	44	44	44	44	40	40	40	40	40	40	40
Providence	62.5	100.0	115.0	105.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	131.3	44	40	40	40	40	40	40	40	40	40	40	40	40
Richmond, Va	37.5	62.5	75.0	87.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	75.0	100.0	125.0	137.5	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	150.0	44	44	44	44	44	44	44	44	40	40	40	40	40
St. Paul	62.5	90.0	112.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake, City	75.0	100.0	125.0	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	87.5	112.5	125.0	127.5	127.5	150.0	150.0	150.0	150.0	137.5	137.5	137.5	110.0	44	40	40	44	44	44	44	44	44	44	40	40	40
Scranton	55.0	80.0	100.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	40	40	40	40	40
Seattle	75.0	112.5	125.0	112.5	137.5	137.5	137.5	137.5	150.0	150.0	150.0	150.0	120.0	44	40	40	40	40	40	40	40	40	40	40	40	40
Washington	62.5	87.5	100.0	125.0	150.0	162.5	162.5	162.5	162.5	162.5	162.5	175.0	175.0	44	44	44	44	44	44	44	44	44	40	40	40	40

Plasterers' laborers

Boston	40.0 41.5	60.0	80.0	80.0	95.0	95.0	95.0	105.0	105.0	110.0	110.0	110.0	95.0	44	40	40	40	40	40	40	40	40	40	40	40	40
Chicago	48.0	62.5	106.3	78.8	78.8	88.8	93.8	96.8	96.8	96.8	103.8	103.8	88.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	45.0	65.0	85.0	72.5	90.0	92.5	95.0	97.5	97.5	97.5	100.0	100.0	70.0	45	45	45	45	45	45	45	45	45	45	45	40	40
Cleveland	35.0	57.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	100.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Denver	43.8	68.8	81.3	81.3	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	75.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Detroit	37.5	75.0	100.0	75.0	100.0	87.5	87.5	87.5	87.5	90.0	90.0	90.0	75.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	------	55.0	75.0	70.0	87.5	87.5	------	------	------	------	------	82.5	80.0	-----	44	44	44	44	44	-----	-----	-----	-----	-----	40	40
Kansas City, Mo	37.5	68.8	90.0	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	99.0	80.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Louisville	38.0	55.0	55.0	80.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	65.0	60.0	44	44	44	40	44	44	44	44	44	40	40	40	40
Milwaukee	32.5	55.0	70.0	75.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	75.0	48	[42]44	44	44	44	44	44	44	44	44	44	40	40
Minneapolis	40.6	60.0	85.0	75.0	85.0	85.0	90.0	90.0	95.0	95.0	95.0	95.0	85.0	48	44	44	44	44	44	44	44	44	44	44	44	44

Newark, N. J.	------	50.0	87.5	75.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	125.0	95.0	-----	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	------	------	------	------	------	------	------	85.0	85.0	85.0	85.0	85.0	75.0	-----	------	------	------	------	------	------	44	44	44	44	40	40
New Orleans	22.5	{35.0 / 45.0	50.0 / 65.0	50.0	75.0	75.0	75.0	75.0	75.0	75.0	65.0	50.0	40.0	48	45	45	45	45	45	45	45	45	45	45	45	45
New York	40.6	62.5	87.5	93.8	106.3	106.3	{121.9 / 125.0	121.9 / 125.0	121.9 / 125.0	121.9 / 125.0	134.0 / 137.5	134.0	{106.3 / 109.4	44	44	44	44	44	44	44	40	40	40	40	40	40	40
Philadelphia	43.8	62.5	110.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	106.3	106.3	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	40.0	60.0	90.0	80.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Portland, Oreg	50.0	75.0	93.8	90.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	90.0	48	44	44	44	44	44	44	40	40	40	40	40	40
St. Louis	[43]56.3	75.0	87.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	106.3	44	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	------	------	------	------	------	------	------	------	------	------	------	85.0	85.0	-----	------	------	------	------	------	------	------	------	------	------	44	44
Salt Lake City	56.3	75.0	100.0	87.5	125.0	125.0	125.0	100.0	100.0	100.0	100.0	100.0	81.3	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	106.3	95.0	83.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.8	44	44	40	46½	46½	44	44	44	44	44	44	40	40
Scranton	------	50.0	58.5	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	-----	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	50.0	87.5	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	44	40	40	40	40	40	40	40	[12] 40	[12] 40	[12] 40	[12] 40	[12] 40
Washington	31.3	50.0	75.0	75.0	87.5	75.0	75.0	------	------	------	75.0	75.0	75.0	44	44	44	44	44	44	44	-----	-----	-----	40	40	40

Plumbers

Atlanta	44.4	75.0	75.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	53	44	44	44	44	44	44	44	44	44	44	40	40
Baltimore	50.0	75.0	87.5	93.8	118.8	125.0	125.0	125.0	131.3	137.5	137.5	150.0	150.0	48	44	44	44	44	44	44	44	40	40	40	40	40
Birmingham	68.8	112.5	150.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	100.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Boston	60.0	80.0	100.0	100.0	112.5	110.0	125.0	125.0	137.5	137.5	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Buffalo	56.3	75.0	100.0	100.0	112.5	118.8	137.5	137.5	137.5	137.5	137.5	137.5	125.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Charleston, S. C.	------	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-----	48	44	44	44	44	44	44	44	44	44	44	44
Chicago	75.0	84.4	125.0	110.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	170.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	61.8	75.0	100.0	100.0	125.0	125.0	135.0	137.5	137.5	137.5	140.0	140.0	125.0	44½	44	44	44	44	44	44	44	44	44	44	40	40
Cleveland	62.5	90.0	100.0	110.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Dallas	68.8	100.0	125.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	87.5	100.0	106.3	118.8	125.0	137.5	137.5	137.5	137.5	137.5	137.5	118.8	44	44	44	44	44	44	44	44	44	44	44	40	40
Detroit	56.3	90.0	125.0	100.0	130.0	130.0	140.0	150.0	150.0	150.0	150.0	150.0	125.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Fall River	43.8	67.5	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	40	44
Indianapolis	62.5	87.5	100.0	115.0	130.0	135.0	135.0	142.5	142.5	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Jacksonville	62.5	80.0	93.8	100.0	125.0	125.0	150.0	162.5	137.5	137.5	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	41	44

[12] 44 hours per week, September to April, inclusive.
[42] 48 hours per week, November to April, inclusive.
[43] For helpers.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Plumbers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Kansas City Mo.	62.5	100.0	100.0	112.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	150.0	125.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	56.3	87.5	125.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	100.0	[25]48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	56.3	81.3	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	40	40
Louisville	60.0	70.0	80.0	100.0	112.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	112.5	44	44	44	44	44	44	44	44	44	44	40	40	40
Manchester	31.3	70.0	100.0	80.0	100.0	100.0	100.0	100.0	105.0	105.0	112.5	112.5	100.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Memphis	62.5	93.8	125.0	112.5	125.0	131.3	135.0	142.0	142.0	150.0	150.0	150.0	125.0	48	44	44	44	44	44	44	44	44	40	40	40	40
Milwaukee	62.5	75.0	87.5	90.0	112.5	112.5	118.8	118.8	118.8	118.8	118.8	118.8	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	75.0	100.0	87.5	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Newark, N. J.	62.5	87.5	112.5	112.5	131.3	137.5	150.0	150.0	150.0	165.0	165.0	165.0	150.0	44	44	44	44	44	44	44	44	44	40	40	40	40
New Haven	50.0	75.0	87.5	87.5	106.3	106.3	112.5	112.5	112.5	112.5	125.0	125.0	106.3	44	44	44	44	44	44	44	44	44	44	40	40	40
New Orleans	56.3	80.0	90.0	90.0	105.0	112.5	125.0	125.0	125.0	105.0	105.0	105.0	105.0	48	48	48	44	44	44	44	44	44	44	44	44	44
New York	68.8	75.0	112.5	112.5	137.5	137.5	{137.5 150.0	150.0	150.0	150.0	165.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Omaha	68.3	87.5	125.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	{43.8 50.0	80.0	90.0	90.0	115.0	115.0	115.0	115.0	115.0	115.0	125.0	125.0	104.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Pittsburgh	62.5	93.8	106.3	112.5	137.5	143.8	150.0	150.0	156.3	156.3	162.5	171.9	171.9	44	44	44	44	44	44	44	44	44	44	40	40	40
Portland, Oreg.	75.0	100.0	112.5	106.3	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	110.0	44	44	44	44	44	44	44	40	40	40	40	40	40
Providence	56.3	75.0	100.0	100.0	112.5	125.0	125.0	127.5	127.5	127.5	127.5	135.0	120.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Richmond	50.0	75.0	75.0	75.0	100.0	100.0	------	------	------	------	------	100.0	100.0	44	44	44	44	44	44	------	------	------	------	------	44	44
St. Louis	66.3	100.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	48	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	62.5	75.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	100.0	112.5	100.0	112.5	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	44	44	44	44	44	44	44	44	44	44	44	40	40
San Francisco	75.0	75.0	81.3	100.0	125.0	125.0	125.0	------	------	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	------	------	44	40	40	40
Scranton	50.0	75.0	87.5	87.5	112.5	112.5	118.8	125.0	125.0	125.0	125.0	125.0	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	81.3	100.0	112.5	100.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	110.0	44	40	40	40	40	40	44	40	40	40	40	40	40
Washington	50.0	87.5	100.0	106.3	125.0	131.3	137.5	137.5	137.5	143.7	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	40	40	40	40

Sheet-metal workers

Sheet-metal workers

Atlanta	33.3	60.0	60.0										90.0	53	48	48									44
Baltimore	40.0	80.0	80.0	90.0	100.0	120.0	120.0	131.3	131.3	131.3	137.5	137.5	112.5	48	44	44	44	44	44	44	44	40	40	40	40	40
Birmingham	55.0	75.0	100.0	85.0	100.0	100.0	112.5	112.5	112.5	115.0	115.0	115.0	100.0	44	44	44	44	44	44	44	44	44	44	40	40	44
Boston	55.0	80.0	100.0	100.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	137.5	117.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Buffalo	45.0	62.5	87.5	87.5	110.0	110.0	110.0	110.0	115.0	115.0	125.0	130.0	110.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Chicago	65.0	75.0	125.0	110.0	125.0	137.5	137.5	150.0	150.0	150.0	156.3	170.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	45.0	56.0	70.0	80.0	100.0	110.0	116.3	120.0	122.5	122.5	125.0	125.0	107.5	44	48	48	48	48	48	48	48	48	48	40	40	40
Cleveland	45.0	85.0	[14]125.0	104.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	112.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	50.0	87.5	100.0	100.0	115.6	125.0	125.0	125.0	125.0	125.0	137.5	137.5	100.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Denver	56.3	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Detroit	40.0	80.0	125.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	100.0	48	44	44	44	44	44	44	44	44	44	40	44	44
Indianapolis	47.5	60.0	100.0	92.5	105.0	105.0	107.5	115.0	122.5	122.5	127.5	115.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	57.5	70.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Los Angeles	56.3	68.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	65.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	85.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	34.4	44.3	100.0	80.0	90.0	100.0	100.0	100.0	100.0	{100.0 90.0	100.0 90.0	100.0 90.0	90.0 80.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	75.0	100.0	87.5	105.0	112.5	112.5	112.5	112.5	125.0	137.5	125.0	110.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Milwaukee	42.5	60.0	67.5	85.0	100.0	100.0	100.0	100.0	100.0	105.0	105.0	105.0	92.5	48	[16] 48	44	44	44	44	44	44	44	44	44	44	40
Minneapolis	50.0	70.0	100.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	40	40
Newark, N. J	60.0	87.5	100.0	112.5	131.3	137.5	150.0	150.0	150.0	150.0	165.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	47.7	75.0	87.5	87.5	106.3	106.3	112.5	112.5	112.5	112.5	125.0	137.5	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	59.4	75.0	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	165.0	140.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Omaha	42.5	75.0	112.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	75.0	110.0	90.0	112.5	112.5	112.5	118.8	125.0	125.0	125.0	130.0	130.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Pittsburgh	55.0	80.0	90.0	100.0	131.3	143.8	150.0	150.0	150.0	150.0	150.0	156.3	131.3	44	44	44	44	44	44	44	44	44	44	44	40	40
Portland, Oreg	56.3	86.0	100.0	90.0	106.3			112.5	118.8	118.8	118.8	125.0	100.0	44	44	44	44				40	40	40	40	40	40
Providence	46.0	65.0	100.0	87.5	100.0	110.0	110.0	110.0	110.0	110.0	135.0	125.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	60.0	75.0	85.0	100.0	137.5	137.5	137.5	150.0	150.0	150.0	150.0	150.0	125.0	44	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	50.0	70.0	100.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	68.8	100.0	112.5	106.3	106.3	106.3	106.3	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	40	44	40
Scranton	43.8	75.0	87.5	87.5	112.5	112.5	118.8	125.0	125.0	125.0	125.0	125.0	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	90.0	100.0	93.8	106.3			125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44			40	40	40	40	40	40
Washington	50.0	75.0	92.5	100.0	120.0	125.0	131.3	137.5	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40

[14] Old scale; strike pending at time of report.

[15] 44 hours per week, June to September, inclusive.

[16] 44 hours per week, June to August, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Stonecutters

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Baltimore	50.0	75.0	100.0	90.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	44½	44	44	44	44	44	44	44	44	44	44	44	40
Boston	56.3	70.0	100.0	100.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	137.5	117.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Buffalo	56.3	75.0	100.0	100.0	120.0	125.0	125.0	135.0	137.5	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	62.5	81.3	125.0	102.5	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	120.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	56.3	77.5	115.0	125.0	125.0	125.0	132.5	150.0	150.0	150.0	150.0	150.0	137.5	44½	44	44	44	44	44	44	44	44	44	40	40	40
Cleveland	60.0	80.0	112.5	110.0	125.0	135.0	135.0	137.5	137.5	137.5	137.5	150.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	62.5	87.5	100.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Detroit	62.5	80.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	56.3	75.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	56.3	75.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	55.0	65.0	100.0	80.0	112.5	80.0	------	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	-----	44	44	44	44	44	44
Louisville	56.3	75.0	100.0	100.0	112.5	112.5	112.5	112.5	115.0	115.0	115.0	-------	90.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	------	100.0	90.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	112.5	87.5	44	-----	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	75.0	87.5	100.0	112.5	125.0	125.0	137.5	131.3	131.3	131.3	131.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J	68.8	84.4	112.5	112.5	131.3	137.5	150.0	150.0	150.0	168.8	168.8	168.8	[45] 168.8	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	------	------	------	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	112.5	-----	-----	-----	44	44	44	44	44	44	44	44	44	44
New York	68.8	84.4	100.0	112.5	131.3	137.5	150.0	150.0	150.0	168.8	168.8	168.8	[45] 168.8	44	44	44	44	44	44	44	44	44	44	40	40	40
Philadelphia	50.0	82.5	135.0	100.0	125.0	125.0	131.3	131.3	131.3	131.3	131.3	131.3	131.3	44	44	44	44	44	44	44	44	44	44	44	44	40
Pittsburgh	------	------	------	------	------	------	------	------	------	------	------	125.0	125.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44	44
Richmond, Va	54.5	75.0	87.5	100.0	112.5	112.5	112.5	125.0	125.0	137.5	137.5	137.5	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40
St. Louis	56.3	85.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	40
St. Paul	56.3	75.0	87.5	100.0	112.5	125.0	125.0	137.5	131.3	131.3	131.3	131.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	------	------	------	------	------	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	-----	-----	-----	-----	-----	44	44	44	40	44	44	44	40
Scranton	50.0	60.0	90.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	112.5	48	44	44	44	44	44	44	44	40	44	44	44	44
Washington	54.0	87.5	100.0	100.0	112.5	------	------	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	-----	-----	44	44	44	44	44	44

Atlanta	62.5	80.0	95.0	------	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	----	44	44	44	44	44	44	44	44	44
Baltimore	56.3	100.0	125.0	112.5	125.0	137.5	137.5	150.0	150.0	150.0	165.0	165.0	137.5	44	44	44	44	44	44	44	44	44	40	40	40	40
Birmingham	62.5	80.0	100.0	------	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	----	44	44	44	44	44	44	44	40	40
Boston	62.5	80.0	100.0	100.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	137.5	120.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Buffalo	60.0	85.0	100.0	100.0	112.5	125.0	125.0	125.0	131.3	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	68.0	87.5	125.0	105.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	162.5	135.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	62.5	75.0	100.0	95.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	140.0	125.0	44½	44	44	44	44	44	44	44	44	44	40	40	40
Cleveland	65.0	100.0	125.0	110.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	125.0	[7]44	44	44	44	44	44	44	44	44	44	40	40	40
Dallas	62.5	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	87.5	100.0	103.1	115.6	125.0	125.0	125.0	125.0	125.0	125.0	125.0	109.4	44	44	44	44	44	44	44	44	44	44	44	40	40
Detroit	60.0	90.0	125.0	100.0	125.0	125.0	137.5	137.5	137.5	150.0	150.0	150.0	125.0	[25]48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	65.0	85.0	125.0	112.5	125.0	125.0	135.0	140.0	145.0	145.0	145.0	145.0	116.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	------	------	------	------	------	------	------	------	125.0	125.0	125.0	125.0	100.0	----	----	----	----	----	----	----	----	----	44	44	44	44	44
Kansas City, Mo	62.5	90.0	110.0	107.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Little Rock	------	87.5	100.0	75.0	112.5	112.5	112.5	------	------	------	------	125.0	100.0	----	44	44	44	44	44	44	44	----	----	----	44	44
Los Angeles	50.0	75.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	50.0	80.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	62.5	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	56.3	80.0	100.0	90.0	112.5	112.5	112.5	120.0	120.0	120.0	120.0	120.0	105.0	[42]44	44	44	44	44	44	44	44	44	44	44	44	40
Minneapolis	56.3	87.5	87.5	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	62.5	87.5	112.5	112.5	150.0	150.0	150.0	175.0	175.0	175.0	187.5	200.0	200.0	44	44	44	44	44	44	44	44	44	44	40	40	40
New Haven	62.5	92.5	106.3	100.0	125.0	125.0	125.0	137.5	137.5	137.5	150.0	165.0	137.5	44	44	44	44	44	44	44	44	44	44	44	40	40
New Orleans	62.5	75.0	100.0	100.0	106.3	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	62.5	87.5	112.5	112.5	150.0	150.0	150.0	175.0	175.0	175.0	192.5	192.5	150.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Omaha	58.8	90.0	115.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	60.0	92.5	112.5	100.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	165.0	137.5	44	44	44	44	44	44	44	44	44	44	[2]44	40	40
Pittsburgh	62.5	100.0	100.0	100.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	150.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Portland, Oreg	62.5	100.0	112.5	101.3	112.5	112.5	112.5	125.0	125.0	125.0	137.5	137.5	110.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Providence	56.3	92.5	100.0	92.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Richmond, Va	56.3	92.5	100.0	100.0	100.0	125.0	125.0	125.0	137.5	137.5	137.5	150.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	92.5	125.0	106.3	150.0	150.0	150.0	150.0	150.0	150.0	175.0	175.0	147.0	44	44	44	44	44	44	44	44	44	40	40	40	40
St. Paul	56.3	80.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	100.0	112.5	90.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[7] 48 hours per week, October to April, inclusive.
[25] 44 hours per week, June to September, inclusive.
[2] 48 hours per week, November to April, inclusive.
[42] Old scale; lockout pending.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Structural-iron workers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
San Francisco	75.0	100.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	120.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Scranton	56.3	87.5	100.0	100.0	112.5	112.5	137.5	137.5	137.5	137.5	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	100.0	112.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	110.0	44	40	44	44	44	44	44	44	44	44	44	44	44
Washington	56.3	92.5	98.0	125.0	150.0	150.0	150.0	150.0	150.0	165.0	165.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Typesetting-machine operators: Book and job																										
Atlanta	43.8	46.9	57.5	80.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Baltimore	46.9	60.4	81.3	83.3	90.9	90.9	90.9	90.9	90.9	90.9	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Birmingham	52.5	57.3	78.1	80.0	80.0	85.2	92.5	92.5	92.5	92.5	92.5	92.5	82.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	45.8	59.4	77.1	91.5	96.5	96.5	96.5	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	59.4	71.9	95.5	104.5	109.1	111.4	115.9	115.9	115.9	118.2	118.2	118.2	48	48	48	44	44	44	44	44	44	44	44	44	44
Charleston, S. C.	-----	50.0	50.0	[46]103.4	88.6	[46]95.5	88.6	88.6	88.6	88.6	88.6	90.9	90.9	-----	48	48	44	44	44	44	44	44	44	44	44	44
Chicago	50.0	77.9	98.8	109.2	119.1	119.1	119.1	125.9	125.9	125.9	132.7	132.7	132.7	48	48	48	44	44	44	44	44	44	44	44	44	[2]44
Cincinnati	49.0	58.3	81.3	104.5	109.1	109.1	109.1	113.6	113.6	115.9	118.2	118.2	118.2	48	48	44	44	44	44	44	44	44	44	44	44	40
Cleveland	53.8	68.8	87.5	93.8	100.0	109.1	111.4	113.6	113.6	115.9	115.9	115.9	109.1	48	48	48	44	44	44	44	44	44	44	44	44	44
Dallas	[47]12.5	[47]12.0	[47]15.0	[47]15.0	[47]15.0	[47]15.0	[47]15.0	[47]15.0	104.5	[47]15.3	[47]15.5	120.0	120.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Denver	54.2	65.6	81.3	95.5	95.5	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	55.0	85.0	100.0	100.0	105.0	105.0	120.0	125.0	125.0	130.0	131.0	131.0	126.0	48	48	48	48	44	48	44	44	44	44	44	44	44
Fall River	-----	46.9	62.5	72.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	-----	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	60.4	81.3	92.7	95.5	98.0	100.0	102.3	104.5	106.8	111.4	111.4	111.4	48	48	48	44	44	44	44	44	44	44	44	44	44
Jacksonville	43.8	58.3	75.0	102.3	81.8	[46]88.6	98.9	98.9	98.9	98.9	98.9	98.9	98.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	55.2	69.8	78.1	89.6	97.2	99.4	101.7	104.0	105.1	107.4	107.4	107.4	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Little Rock	50.0	50.0	72.9	70.0	-----	85.2	96.6	96.6	92.0	92.0	94.3	94.3	94.3	48	48	48	44	-----	44	44	44	44	44	44	44	44
Los Angeles	58.3	70.8	81.3	104.5	110.2	110.2	116.6	116.6	120.5	120.5	120.5	120.5	120.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Louisville	49.0	54.2	54.2	79.0	79.0	-----	-----	79.0	79.0	86.4	-----	86.4	86.4	48	48	48	44	44	-----	-----	44	44	44	-----	44	44
Manchester	35.4	41.7	66.7	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	44	44	44	44	44	44	44	44	44	44

Memphis	62.5	68.8	93.8	109.1	109.1	80.0								81.8	48	48	48	44	44	44							44
Milwaukee	47.9	60.4	75.0	95.5	95.5	95.5	95.5	100.0	102.3	102.3	104.5	106.8	96.3	48	48	48	44	44	44	44	44	44	44	44	44	44	40
Minneapolis	50.0	61.5	87.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	47.9	72.9	91.7	102.3	115.9	115.9	118.2	120.5	122.7	125.0	127.3	129.5	129.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44
New Haven	45.8	45.8	58.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	44	44	44	44	44	44	44	44	44	44	44
New Orleans		53.3	76.7	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4		45	45	44	44	44	44	44	44	44	44	44	44
New York	54.2	75.0	93.8	113.6	120.5	120.5	122.7	125.0	127.3	129.5	131.8	134.1	136.4	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	68.8	87.5	93.2	93.2	93.2	93.2	100.0	100.0	100.0	100.0	100.0	93.8	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	43.8	64.6	93.8	94.1	94.1	94.1	94.1	94.1	94.1	94.1	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	47.9	68.8	87.5	106.8	106.8	106.8	106.8	111.4	111.4	111.4	113.6	113.6	113.6	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	65.6	100.0	100.0	110.0	104.5	111.4	111.4	114.8	114.8	114.8	114.8	114.8	103.3	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Providence	47.9	54.2	72.9	86.4	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	48	48	48	44	44	44	44	44	44	44	44	44	44	44
St. Louis	50.0	63.8	87.5	101.0	106.0	106.0	106.0	111.0	111.0	111.0	111.0	111.0	111.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	61.5	83.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	64.6	75.0	75.0	93.2								93.2	48	48	48	48	44									44
San Francisco	64.4	68.8	81.3	104.5	104.5	115.9	115.9	115.9	115.9	115.9	118.2	118.2	118.2	45	48	48	44	44	44	44	44	44	44	44	44	44	44
Scranton	45.8	54.2	81.3	85.2	90.9	110.0	100.0	102.3	104.5	104.5	104.5	104.5	104.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Seattle							93.8	123.2	123.2	123.2	[46]133.9	[46]133.9	[46]133.9								44	42	42	42	42	42	42
Washington	50.0	75.0	87.5	95.5	95.5	95.5	95.5	102.3	102.3	104.5	106.8	106.8	106.8	48	[17]48	[17]48	44	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[17] 44 hours per week for 3 months, between June 1 and Sept. 30.
[46] Tend own machines.
[47] Per 1,000 ems nonpareil.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1932, BY CITIES—Continued

Typesetting-machine operators, daywork: Newspaper

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932	1913	1919	1920	1922	1924	1925	1926	1927	1928	1929	1930	1931	1932
Atlanta	[47] 8.5	[47] 8.5	[47] 9.0	[47] 10.0	[47] 10.5	[48] 12.0	[48] 12.0	[48] 12.0	[47] 12.0	[47] 12.0	[47] 12.0	[47] 12.0	[47] 12.0	48	48	48	[22] 48	[22] 48	[22] 48	48	48	48	48	48	48	48
Baltimore	53.6	65.5	93.3	95.5	106.8	106.8	110.2	110.2	110.2	114.8	114.8	114.8	114.8	42	42	45	44	44	44	44	44	44	44	44	44	44
Birmingham	52.5	67.5	67.5	82.5	82.5	[47] 12.0	92.5	95.0	97.5	100.0	102.5	102.5	95.0	[18] 42	[18]42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42	[18] 42
Boston	63.0	83.0	95.0	107.0	112.0	117.0	117.0	125.0	125.0	125.0	125.0	125.0	125.0	[19] 42	[19]42	[19] 42	44	44	44	[19] 44	[18] 44	[18] 44	[18] 44	[18] 44	[18] 44	[18] 44
Buffalo	50.0	65.6	71.9	87.5	95.8	95.8	102.1	102.1	102.1	106.3	108.3	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Charleston, S. C	[47] 9.0	[47] 9.0	57.1	94.8	87.5	87.5	87.5	87.5	92.7	92.7	92.7	94.0	94.0	[18] 39	[18]39	[18] 42	48	48	48	48	48	48	48	48	48	48
Chicago	[49] 50.0	[50]64.0	[50]72.0	{[51]115.0 / [51]96.0	129.0 / [52]113.0	129.0 / [52]113.0	129.0 / [52]113.0	[52]135.6	{[52]138.0 / [52]113.0	140.0 / [52]113.0	140.0 / [52]113.0	140.0 / [52]113.0	140.0 / [52]113.0	48	[18]45	[18] 45	48	{45 / [25]45	48 / [25] 45	45	45	45	45	45	45	45
Cincinnati	52.1	87.5	107.3	107.3	113.3	113.8	113.8	113.8	118.3	118.3	122.8	122.8	122.8	[21] 47½	48	45	45	45	45	45	45	45	45	45	45	37½
Cleveland	53.8	68.8	87.5	96.9	107.3	107.3	111.6	116.7	119.0	119.0	119.0	119.0	119.0	48	48	48	48	48	48	45	45	45	45	45	45	45
Dallas	[47]12.5	[47]12.0	[47]15.0	[47] 15.0	[47] 15.0	[47] 15.0	[47] 16.3	[47] 16.3	[47]16.3	[47] 16.3	[47] 16.3	[47] 16.3	[47] 16.3	39	[53]39	[53] 39	[19] 36	[16] 36	[16] 36	[16] 36	[16] 36	[16] 36	[16] 36	[16] 36	[16] 36	[16] 36
Denver	63.3	72.7	97.8	93.3	103.3	103.3	103.3	103.3	110.6	114.8	119.9	119.9	119.9	45	45	45	45	45	45	45	45	45	44	44	44	44
Detroit	55.0	74.5	87.0	97.0	113.0	113.0	120.0	125.0	125.0	130.0	131.0	131.0	126.0	48	[22]48	[22]48	[22] 48	[22] 48	[22] 48	[22] 48	45	45	45	45	45	45
Fall River	45.8	50.0	75.0	79.2	87.5	87.5	87.5	87.5	87.5	87.5	95.8	95.8	95.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	60.4	81.3	89.6	100.0	100.0	104.2	106.3	106.3	110.9	110.9	110.9	110.9	48	48	48	48	48	48	48	48	48	48	46	46	46
Jacksonville	[47] 9.0	58.3	83.3	83.3	83.3	89.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45	48	48	48	48	48	48	48	48	48	48	48	48
Kansas City, Mo	59.4	68.8	90.6	90.6	90.6	95.8	102.1	104.2	104.2	108.3	108.3	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	[47] 9.5	78.6	90.5	102.4	102.4	107.1	103.6	103.6	107.1	102.3	102.3	102.3	101.0	42	42	42	42	42	42	42	42	42	44	44	44	42
Los Angeles	62.2	75.6	86.7	101.1	107.8	107.8	114.0	114.0	117.8	117.8	117.8	117.8	117.8	45	45	45	45	45	45	45	45	45	45	45	45	45
Louisville	49.0	62.5	87.5	87.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	41.7	66.7	72.9	80.2	82.3	83.3	83.3	83.3	83.3	88.9	88.9	88.9	48	48	48	48	48	48	48	48	48	48	48	45	45
Memphis	[47] 9.5	[47] 9.5	[47]12.0	[47]12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 12.5	[47] 11.3	[18] 45	[18]45	[18] 45	[18] 45	[18] 45	45	45	45	45	45	45	45	45
Milwaukee	45.8	56.3	77.1	93.8	97.9	102.5	102.5	106.3	106.3	110.4	117.8	117.8	117.8	48	48	48	48	48	48	48	48	48	48	45	45	45
Minneapolis	[47]10.0	[47]10.0	[47]11.0	[47]12.5	[47] 12.5	[47] 12 0	[47] 12.0	[47] 12.0	121.4	121.4	121.4	{123.8 / 138.9	123.8 / 107.5	48	48	48	[18] 36	[18] 36	48	48	48	42	42	42	{42 / 36	42 / 46½
Newark, N.J	60.9	76.1	89.1	110.9	110.9	119.6	121.7	130.4	132.6	134.8	134.8	134.8	134.8	46	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	50.0	72.9	79.2	85.4	85.4	87.5	89.6	89.6	91.7	93.8	95.8	95.8	48	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	96.7	122.2	122.2	133.9	133.3	133.3	140.0	142.2	144.4	144.4	144.4	144.4	45	45	45	45	45	45	45	45	45	45	45	45	37½
Omaha	50.0	68.8	87.5	87.5	90.6	90.6	90.6	96.9	97.9	99.0	100.0	100.0	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	45.8	66.7	81.3	79.2	87.5	87.5	87.5	91.3	91.3	91.3	91.3	91.3	91.3	48	48	48	48	48	48	48	46	46	46	46	46	46
Pittsburgh	55.0	77.0	87.5	111.8	121.1	121.1	125.6	126.7	126.7	126.7	128.9	128.9	121.1	48	[18]45	48	46½	45	45	45	45	45	45	45	45	45
Portland, Oreg	68.3	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	113.3	113.3	113.3	106.7	45	45	45	45	45	45	45	45	45	45	45	45	45

Providence	47.9	66.7	87.5	95.8	104.2	111.1	104.2	108.3	108.3	108.3	112.5	116.7	118.8	48	48	48	48	48	48	48	48	48	48	48	48
Richmond, Va	41.7	56.3	56.3	87.5	87.5	87.5	94.8	94.8	94.8	94.8	94.8	94.8	87.5	48	48	48	48	48	48	48	48	48	48	48	48
St. Louis	[47]11.0	[47]11.5	[47]15.0	[47]15.0	[47] 17.0	[47] 17.5	[47] 18.2	110.9	114.1	114.1	120.7	[47] 18.2	[47] 18.2	[54] 39	[54] 42	46	46	46	46	46	46	46	46	44	44
St. Paul	54.5	63.0	94.0	89.8	93.8	101.3	101.3	101.3	101.3	101.3	101.3	101.3	101.3	48	[55] 48	[55] 48	[55] 48	[55] 48	[55] 48	48	48	48	48	48	48
Salt Lake City	[47]10.0	[47]11.0	[56]11.0	[56] 13.5	[47] 13.5	[47] 15.0	[47] 15.0	[47] 15.0	[47] 15.0	[47] 15.0	[47] 17.5	[47] 17.5	[47] 17.5	48	[57] 48	[57] 46½	[58] 46½	[58] 46½	[22] 43½	[22] 43½	[22] 43½	[22] 43½	43½	43½	43½
San Francisco	64.4	75.6	93.8	107.8	107.8	115.6	115.6	115.6	120.0	120.0	120.0	120.0	120.0	45	45	45	45	45	45	45	45	45	45	45	45
Scranton	47.9	60.4	81.3	87.5	95.8	104.2	110.4	112.5	114.9	114.9	114.9	114.9	114.9	48	48	48	48	48	48	48	48	47	47	47	47
Seattle	75.0	100.0	114.3	114.3	121.4	121.4	121.4	123.2	123.2	123.2	123.2	123.2	123.2	42	42	42	42	42	42	42	42	42	42	42	42
Washington	60.7	92.9	104.0	104.0	110.0	110.0	128.6	128.6	128.6	128.6	128.6	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42

[18] Minimum; maximum, 8 hours per day.
[19] Actual hours worked; minimum, 6; maximum, 8 hours per day.
[21] Work 47½ hours, paid for 48.
[22] Maximum; minimum, 7 hours per day.
[25] 44 hours per week, June to September, inclusive.
[47] Per 1,000 ems nonpareil.
[48] Per 1,000 ems minion.
[49] For 3,500 ems per hour; for 4,500 ems per hour, 55 cents and 1 cent bonus for each additional 100 ems per hour.
[50] For 3,500 ems per hour; for 4,500 ems per hour, 70 cents and 1 cent bonus for each additional 100 ems per hour.
[51] For 4,000 ems per hour; for 4,500 ems per hour, $1.06 and 1 cent bonus for each additional 100 ems per hour.
[52] For 4,500 ems per hour; 1 cent bonus for each additional 100 ems per hour.
[53] Maximum; minimum, 5½ hours per day.
[54] Minimum; maximum, 7⅔ hours per day.
[55] Maximum; minimum, 7½ hours per day.
[56] Per 1,000 ems nonpareil and $1 per day bonus.
[57] Maximum; minimum, 6½ hours per day.
[58] Maximum; minimum, 40½ hours per week.

Wage-Rate Changes in American Industries

Manufacturing Industries

DATA concerning wage-rate changes occurring between June 15 and July 15 in 89 manufacturing industries included in the monthly trend of employment survey of the Bureau of Labor Statistics are presented in the following table.

Of the 17,873 manufacturing establishments furnishing employment data in July, 17,095 establishments, or 95.6 per cent of the total, reported no change in wage rates during the month ending July 15, 1932. The employees whose wage rates were reported unchanged over the month interval totaled 2,363,981, comprising 95.5 per cent of the total number of employees included in this survey of manufacturing industries.

Decreases in rates of wages were reported by 776 establishments, or 4.3 per cent of the total number of establishments reporting. These decreases, averaging 10.5 per cent, affected 110,113 employees, or 4.5 per cent of all employees in the establishments reporting.

Two establishments reported increases in wage rates in July averaging 16.2 per cent and affecting 47 people.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
All manufacturing industries	17,873	2,474,141	17,095	2	776	2,363,981	47	110,113
Per cent of total	100.0	100.0	95.6	(1)	4.3	95.5	(1)	4.5
Slaughtering and meat packing	227	81,257	204		23	72,645		8,612
Confectionery	326	24,885	318	1	7	24,507	29	349
Ice cream	381	13,660	374		7	13,408		252
Flour	427	15,817	412		15	15,348		469
Baking	935	62,518	918		17	62,043		475
Sugar refining, cane	15	8,052	14		1	7,468		584
Beet sugar	46	2,966	24		22	1,390		1,576
Beverages	341	11,151	341			11,151		
Butter	315	6,293	303		12	6,192		101
Cotton goods	684	168,757	627		57	152,268		16,489
Hosiery and knit goods	452	86,734	435		17	84,229		2,505
Silk goods	255	30,187	236		19	28,071		2,116
Woolen and worsted goods	260	44,784	233		27	36,876		7,908
Carpets and rugs	32	9,062	29		3	8,080		982
Dyeing and finishing textiles	149	27,524	139		10	26,381		1,143
Clothing, men's	357	48,224	348		9	47,048		1,176
Shirts and collars	105	12,183	103		2	12,164		19
Clothing, women's	385	17,289	384		1	17,274		15
Millinery	136	6,258	134		2	6,180		78
Corsets and allied garments	32	5,165	32			5,165		
Cotton small wares	112	8,230	104		8	7,600		630
Hats, fur felt	38	4,839	34		4	4,653		186
Men's furnishings	72	4,176	72			4,176		
Iron and steel	212	169,618	196		16	157,187		12,431
Cast-iron pipe	38	5,907	35		3	5,056		851
Structural and ornamental iron-work	180	15,734	168		12	14,835		899
Hardware	107	19,581	101		6	19,252		329
Steam fittings and steam and hot-water heating apparatus	111	15,410	109		2	14,947		463
Stoves	160	12,959	153		7	11,994		965
Bolts, nuts, washers, and rivets	64	8,037	62		2	8,019		18
Cutlery (not including silver and plated cutlery) and edge tools	127	8,625	121		6	8,413		212
Forgings, iron and steel	61	5,370	58		3	5,301		69
Plumbers' supplies	63	4,438	61		2	4,434		4

[1] Less than one-tenth of 1 per cent.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1932—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Tin cans and other tinware	58	8,570	57		1	8,564		6
Tools (not including edge tools, machine tools, files, or saws)	132	5,349	129		3	5,133		216
Wirework	70	4,951	67		3	4,704		247
Lumber, sawmills	605	54,792	571		34	50,961		3,831
Lumber, millwork	450	16,431	428		22	15,431		1,000
Furniture	483	38,883	466		17	36,820		2,063
Turpentine and rosin	19	1,019	18		1	1,008		11
Leather	165	22,078	160		5	21,869		209
Boots and shoes	333	99,412	318		15	96,743		2,669
Paper and pulp	401	74,673	377		24	70,106		4,567
Paper boxes	312	19,105	297		15	18,397		708
Printing, book and job	750	51,630	712	1	37	49,595	18	2,017
Printing, newspapers and periodicals	447	66,042	427		20	63,463		2,579
Chemicals	114	19,787	110		4	19,078		709
Fertilizers	203	4,268	196		7	4,164		104
Petroleum refining	114	47,152	110		4	46,406		746
Cottonseed oil, cake, and meal	51	1,575	50		1	1,565		10
Druggists' preparations	39	6,844	39			6,844		
Explosives	21	2,550	19		2	2,534		16
Paints and varnishes	352	14,887	331		21	13,577		1,310
Rayon	22	18,035	18		4	15,635		2,400
Soap	91	12,229	86		5	11,637		592
Cement	123	13,768	121		2	13,586		182
Brick, tile, and terra cotta	657	19,098	639		18	18,019		1,079
Pottery	121	11,755	114		7	11,482		273
Glass	188	31,604	176		12	30,431		1,173
Marble, granite, slate, and other stone products	220	5,425	209		11	4,843		582
Stamped and enameled ware	92	12,183	86		6	11,568		615
Brass, bronze, and copper products	199	25,925	185		14	25,005		920
Aluminum manufactures	26	4,608	26			4,608		
Clocks, time-recording devices, and clock movements	22	3,046	21		1	2,099		947
Gas and electric fixtures, lamps, lanterns, and reflectors	52	3,416	48		4	3,281		135
Plated ware	51	6,242	50		1	6,204		38
Smelting and refining—copper, lead, and zinc	26	7,645	24		2	6,976		66
Jewelry	151	6,589	151			6,589		
Chewing and smoking tobacco and snuff	36	9,962	35		1	9,902		60
Cigars and cigarettes	215	44,732	211		4	44,472		260
Automobiles	244	233,006	241		3	232,934		72
Aircraft	34	6,055	34			6,056		
Cars, electric and steam railroad	33	4,576	33			4,576		
Locomotives	11	2,506	11			2,506		
Shipbuilding	92	28,312	90		2	28,181		131
Rubber tires and inner tubes	38	36,517	37		1	35,942		575
Rubber boots and shoes	10	9,650	9		1	8,934		716
Rubber goods, other than boots, shoes, tires, and inner tubes	96	13,397	92		4	113,234		163
Agricultural implements	74	4,360	73		1	4,322		38
Electrical machinery, apparatus, and supplies	281	115,563	267		14	13,203		2,360
Engines, turbines, tractors, and water wheels	74	12,820	68		6	12,246		574
Cash registers, adding machines, and calculating machines	44	14,774	40		4	14,555		219
Foundry and machine-shop products	1,074	102,616	1,025		49	94,651		2,965
Machine tools	149	10,399	143		6	9,738		661
Textile machinery and parts	28	4,314	28			4,314		
Typewriters and supplies	16	5,771	15		1	5,751		20
Radio	42	16,182	42			16,182		
Electric-railroad repair shops	395	21,035	361		34	19,265		1,770
Steam-railroad repair shops	522	70,338	522			70,338		

Nonmanufacturing Industries

IN THE following table are presented data concerning wage-rate changes occurring between June 15 and July 15, 1932, reported by 14 nonmanufacturing groups included in the bureau's monthly employment survey.

No increase in wage rates from June to July were reported by establishments in the 14 nonmanufacturing groups of industries shown in the accompanying table, and the anthracite mining group alone reported no decreases in wage rates over the month interval. A number of establishments in each of the remaining 13 groups reported decreases in wage rates during the month ending July 15; the adjustments in 10 of these 13 industrial groups averaging approximately 10 per cent. The wage-rate decreases reported by establishments in the power and light group averaged 12.4 per cent, while the decreases in rates reported by establishments in the bituminous coal mining and the canning and preserving industries averaged 15 per cent and 16.9 per cent, respectively.

TABLE 2.—WAGE CHANGES IN **NONMANUFACTURING INDUSTRIES** DURING MONTH ENDING JULY 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Anthracite mining	160	60,818	160	----	----	60,818	----	----
Per cent of total	100.0	100.0	100.0	----	----	100.0	----	----
Bituminous coal mining	1,109	143,915	1,043	----	66	133,984	----	9,931
Per cent of total	100.0	100.0	94.0	----	6.0	93.1	----	6.9
Metalliferous mining	239	18,707	229	----	10	17,439	----	1,268
Per cent of total	100.0	100.0	95.8	----	4.2	93.2	----	6.8
Quarrying and nonmetallic mining	593	20,995	569	----	24	19,824	----	1,171
Per cent of total	100.0	100.0	96.0	----	4.0	94.4	----	5.6
Crude petroleum producing	240	21,331	233	----	7	20,540	----	791
Per cent of total	100.0	100.0	97.1	----	2.9	96.3	----	3.7
Telephone and telegraph	8,042	279,694	8,030	----	12	279,255	----	439
Per cent of total	100.0	100.0	99.9	----	0.1	99.8	----	0.2
Power and light	3,446	219,930	3,361	----	85	216,181	----	3,749
Per cent of total	100.0	100.0	97.5	----	2.5	98.3	----	1.7
Electric-railroad and motor-bus operation and maintenance	492	129,782	463	----	29	109,329	----	20,453
Per cent of total	100.0	100.0	94.1	----	5.9	84.2	----	15.8
Wholesale trade	2,604	67,449	2,485	----	119	65,188	----	2,261
Per cent of total	100.0	100.0	95.4	----	4.6	96.6	----	3.4
Retail trade	13,381	313,250	13,143	----	238	306,512	----	6,738
Per cent of total	100.0	100.0	98.2	----	1.8	97.8	----	2.2
Hotels	2,489	136,645	2,416	----	73	130,356	----	6,289
Per cent of total	100.0	100.0	97.1	----	2.9	95.4	----	4.6
Canning and preserving	870	53,553	864	----	6	52,983	----	570
Per cent of total	100.0	100.0	99.3	----	0.7	98.9	----	1.1
Laundries	983	60,601	963	----	20	59,564	----	1,037
Per cent of total	100.0	100.0	98.0	----	2.0	98.3	----	1.7
Dyeing and cleaning	375	12,325	366	----	9	11,677	----	648
Per cent of total	100.0	100.0	97.6	----	2.4	94.7	----	5.3

Wage Changes Reported by Trade-Unions Since May, 1932

CHANGES in the wages and hours of trade-unionists and municipal employees during the months May to August, inclusive, which have been reported to the bureau during the past month, are shown in the table following.

The number of workers affected by changes is 57,303, of whom 760 were reported to have gone on the 5-day week. In addition to the above number, renewed or new agreements were reported for bakers, Duluth, Minn.; bottling workers, Portland, Oreg.; plumbers, Champaign, Ill.; ice-wagon drivers, Oakland, Calif.; drug clerks, New York, N. Y.; and embalmers, Seattle, Wash.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST, 1932

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Bakers:					
Denver, Colo.	June 1	[1]	[2]	[1]	[1]
Oakland, Calif., and vicinity—		*Per week*	*Per week*		
Foremen	do	$49.00–$55.00	$44.10–$49.50	48	48
Dough mixers	do	46.00– 52.00	41.40– 46.80	48	48
Oven men	do	46.00– 52.00	41.40– 46.80	48	48
Bench hands	do	43.00– 49.00	38.70– 44.10	48	48
		Per day	*Per day*		
Cracker bakers	May 1	6.50	5.85	45½	[1]
San Francisco, Calif.—		*Per week*	*Per week*		
Foremen	May 29	46.00	41.40	48	48
Bench hands	do	43.00	38.70	48	48
Helpers	do	34.00	30.60	48	48
Unskilled labor	do	25.00	23.75	48	48
		Per day	*Per day*		
Cracker bakers	May 1	6.50	5.85	45½	[1]
San Jose, Calif.—		*Per week*	*Per week*		
Foremen	May 29	46.00	41.40	48	48
Bench hands	do	43.00	38.70	48	48
Helpers	do	34.00	30.60	48	48
Unskilled labor	do	25.00	23.75	48	48
Barbers, Providence, R. I.	May 1	25.00	20.00	[1]	61
Brewery and soft-drink workers, Davenport, Iowa:					
Establishment A—					
Engineers	July 1	30.00	27.75	48	48
Firemen	do	29.00	26.83	48	48
Maltsters	do	29.00	26.83	48	48
Elevator men	do	29.00	26.83	48	48
Machine men (malting)	do	31.00	28.67	48	48
Machine men (not malting)	do	29.00	26.83	48	48
Establishment B—					
Drivers and helpers	May 1	33.75	32.25	48	48
Stablemen	do	33.75	32.25	48	48
Housemen	do	33.75	32.25	48	48
Building trades:					
Bricklayers and masons—		*Per hour*	*Per hour*		
Brooklyn, N. Y.	June 27	1.92½	1.65	40	40
Greenwich, Conn.	June 13	1.75	1.37½	40	40
Indianapolis, Ind., mosaic and terrazzo workers	July 1	1.25	1.00	44	44
Minneapolis, Minn., tile layers	June 1	1.25	1.12½	44	40
New York, N. Y.—					
Marble carvers	June 27	1.81¼	1.62½	40	40
Marble setters and cutters	do	1.68¾	1.50	40	40
Marble workers, helpers, and crane men	do	1.30⅝	1.15⅝	40	40
Mosaic and terrazzo workers	June 15	1.65	1.43¾	40	40
Helpers	do	1.23¾	1.06¼	40	40
Riggers and derrickmen (stone)	June 27	1.43⅛	1.28⅛	40	40
Stonemasons	June 17	1.92½	1.65	40	40
Tile layers	June 20	1.68¾	1.43¾	40	40
Tile layers' helpers	do	1.25	1.06¼	40	40
Poughkeepsie, N. Y., and vicinity	May 1	1.65	1.37½	40	40
San Francisco, Calif., tile layers' helpers	do	.75	.68¾	40	40
Stapleton, S. I., N. Y.	June 17	1.92½	1.65	40	40
St. Paul, Minn., tile layers	June 1	1.25	1.12½	44	40

[1] Not reported.
[2] $2 per week reduction.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST, 1932—Continued

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades—Continued.					
Carpenters—		*Per hour*	*Per hour*		
Belleville, Ill.	July 1	$1.50	$1.25	40	40
Chattanooga, Tenn.	July 16	.90	.80	44	44
East St. Louis, Ill.	July 1	1.50	1.25	40	40
New Orleans, La.	do.	.90	.75	44	44
Millmen	do.	.65	.50	44	44
Tacoma, Wash.	June 15	1.00	.90	40	40
Cement finishers, New York, N. Y.	June 13	1.65	1.40	40	40
Electrical workers, Pittsfield, Mass.	May 12	1.12½	1.00	44	44
Elevator constructors, New York, N. Y.	June 15	1.65	1.40¼	40	40
Helpers	do.	1.24	1.03⅛	40	40
Granite cutters—					
Buffalo, N. Y.	June 13	1.18¾	1.06¼	40	40
Clyde, Ohio	June 1	1.12½	1.00	44	(1)
Holyoke, Mass.	do.	1.12½	1.00	44	44
Niagara Falls, N. Y.	June 13	1.18¾	1.06¼	40	40
Northampton, Mass.	June 1	1.12½	1.00	44	44
South Ryegate, Vt.	May 23	1.12½	1.00	40–44	40–44
Springfield, Mass.	June 1	1.12½	1.00	44	44
Hod carriers and laborers—					
Astoria, L. I., N. Y., plasterers' helpers	June 24	1.37½	1.09⅜	40	40
Brooklyn, N. Y.—					
Plasterers' laborers	June 22	1.37½	1.06¼	40	40
Plumbers' laborers	June 17	1.12½	1.01¼	40	40
New York, N. Y.—					
Cement and concrete laborers	June 16	1.16⅞	.93¾	40	40
Plasterers' helpers	June 18	1.34	1.06¼	40	40
Lathers—					
Brooklyn, N. Y.	June 17	1.75	1.50	40	40
Fort Worth, Tex.	June 9	1.62½	1.12½	44	44
New York, N. Y., metallic lathers	June 20	1.65	1.40	40	40
Painters—					
Belleville, Ill.	July 1	1.25	1.00	40	40
Oakland, Calif., and vicinity	June 1	1.12½	.87½	40	40
Plasterers—					
Brooklyn, N. Y.	June 20	1.92½	1.50	40	40
Greenwich, Conn.	June 13	1.75	1.37½	40	40
Jamaica, L. I., N. Y.	June 20	1.92½	1.50	40	40
Long Island City, N. Y.	June 13	1.92½	1.50	40	40
New York, N. Y.	do.	1.92½	1.50	40	40
Poughkeepsie, N. Y.	May 1	1.65	1.37½	40	40
Plumbers—					
Brooklyn, N. Y.	June 27	1.65	1.40	40	40
Covington, Ky., and vicinity	June 7	1.37½	1.15	40	40
Indianapolis, Ind.	July 1	1.25	1.32½	40	40
New York, N. Y., steamfitters' helpers	July 5	1.23¾	1.03⅛	40	40
Staten Island, N. Y.	June 23	1.65	1.40	40	40
Roofers—					
New York, N. Y., composition roofers and waterproofers	June 17	1.51¼	1.28⅛	40	40
San Francisco, Calif., composition roofers	May 1	1.00	.80	44	44
Sheet-metal workers—					
Belleville, Ill.	May 1	1.37½	1.12½	40	40
New York, N. Y.	June 16	1.65	1.40	40	40
Washington, D. C.	July 1	1.50	1.29	40	40
Stonecutters—					
New York, N. Y.	do.	1.68¾	1.50	40	40
Planer men	do.	1.50	1.37½	40	40
Rochester, N. Y.	June 15	1.25	1.00	40	40
Structural-iron workers, finishers, New York, N. Y.	June 20	1.65	1.40	40	40
Helpers	do.	1.23¾	1.03⅛	40	40
Chauffeurs and teamsters:		*Per week*	*Per week*		
Chicago, Ill., bone and tallow teamsters	May 1	53.00	48.00	54	54
San Francisco, Calif., bakery salesman-drivers	May 29	45.00	41.00	48	48
Clothing workers, Philadelphia, Pa.	June 27	(1)	(2)	(1)	(1)
Furniture:					
Upholstery workers, San Francisco, Calif.—		*Per day*	*Per day*		
Carpet layers, cutters, and measurers	May 1	9.00	8.00	(1)	(1)
Carpet seamstresses (large machines)	do.	6.00	5.50	(1)	(1)
Carpet seamstresses (hand sewers)	do.	5.50	5.00	(1)	(1)
Hotel and restaurant workers:					
Portland, Oreg., waiters and waitresses	June 1	3.00	2.70	48	48

[1] Not reported.
[2] 10 per cent reduction.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST, 1932—Continued

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Leather:					
New York, N. Y., pocketbook and fancy leather goods workers—		*Per week*	*Per week*		
First class	June 23	$44.65	$35.75	44	44
Second class	do	39.96	32.00	44	44
		Per hour	*Per hour*		
Wilmington, Del., leather workers	June 25	.72	.58	45	45
Longshoremen, Buffalo, N. Y	May 1	.60	.54	50–60	30–40
Metal trades, boilermakers:		*Per day*	*Per day*		
New York, N. Y	July —	13.20	11.20	44	40
		Per hour	*Per hour*		
St. Louis, Mo	May 31	1.50	1.25	[4] 8	[4] 8
Salisbury, N. C.—		*Per day*	*Per day*		
Mechanics	July 1	6.40	5.76	40	32
Helpers	do	4.48	4.03	40	32
Miners, Pittsburgh, Pa., district:					
Pick coal	do	(1)	[5] .50	[4] 8	[4] 8
Loading (machine coal)	do	(1)	[5] .36	[4] 8	[4] 8
Cutting	do	(1)	[5] .06½	[4] 8	[4] 8
Inside labor—					
Motormen	do	(1)	3.65	[4] 8	[4] 8
Drivers	do	(1)	3.65	[4] 8	[4] 8
Trackmen	do	(1)	3.60	[4] 8	[4] 8
Masons	do	(1)	3.45	[4] 8	[4] 8
Cagers	do	(1)	3.65	[4] 8	[4] 8
Snappers	do	(1)	3.65	[4] 8	[4] 8
Wiremen	do	(1)	3.60	[4] 8	[4] 8
Pumpers	do	(1)	3.60	[4] 8	[4] 8
Other inside labor	do	(1)	3.25	[4] 8	[4] 8
			Per hour		
Check boys	do	(1)	.35½	[4] 8	[4] 8
Footmen	do	(1)	.30½	[4] 8	[4] 8
Outside labor—					
Picking table	do	(1)	.25	[4] 8	[4] 8
Other tipple men	do	(1)	.30	[4] 8	[4] 8
Carpenters	do	(1)	.40	[4] 8	[4] 8
Coal inspectors	do	(1)	.40	[4] 8	[4] 8
Blacksmiths	do	(1)	.45	[4] 8	[4] 8
Helpers	do	(1)	.40	[4] 8	[4] 8
Other outside labor	do	(1)	.32	[4] 8	[4] 8
Motion-picture operators:		*Per week*	*Per week*		
Bessemer, Ala	May 1	58.50–67.50	52.65–60.75	[4] 6½	[4] 6½
	July 1	52.65–60.75	50.00–58.50	[4] 6½	[4] 6½
Birmingham, Ala	May 1	58.50–67.50	52.65–60.75	[4] 6½	[4] 6½
	July 1	52.65–60.75	50.00–58.50	[4] 6½	[4] 6½
Printing and publishing:					
Compositors and machine operators—					
Buffalo, N. Y.—					
Job work	July 11	44.00–52.00	40.00–49.00	44	44
Newspaper, day	do	52.00	49.00	48	48
Newspaper, night	do	55.00	52.00	48	48
		Per hour	*Per hour*		
Detroit, Mich.—					
Newspaper, day	May 2	1.31	1.26	45	45
Newspaper, night	do	1.39	1.34	45	45
		Per week	*Per week*		
Hannibal, Mo.—					
Job work	June 1	40.00	36.00	44	44
Newspaper	do	40.00	36.00	48	48
New Brunswick, N. J.—					
Job work	May —	51.00	47.00	44	44
Newspaper	do	51.00	46.00	44	44
Pittsburgh, Pa.—					
Job work, day	June 20	50.00	47.50	44	44
Job work, night	do	53.00	50.50	44	44
Newspaper, day	May 16	58.00	54.50	45	45
Newspaper, night	do	61.00	57.50	45	45
Toledo, Ohio—					
Newspaper, day	June 25	52.50	47.00	48	48
Newspaper, night	do	56.50	50.00	48	48

[1] Not reported.
[4] Hours per day.
[5] Rate per ton.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST, 1932—Continued

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Printing and publishing—Continued.					
Photo-engravers—					
Los Angeles, Calif.—		*Per week*	*Per week*		
Day work	June 20	$55.00	$50.00	44	44
Night work	do	55.00	50.00	42	42
New York, N. Y.—					
Day work	July 1	71.00	62.50	44	44
Night work	do	79.00	70.00	40	40
Stereotypers—					
New Orleans, La.—		*Per day*	*Per day*		
Newspaper, day	June 1	6.75	6.00	48	48
Newspaper, night	do	7.25–7.50	6.50	45	45
Omaha, Nebr.—					
Newspaper, day	May 1	8.00	7.50	48	48
Newspaper, night	do	8.50	8.00	48	48
Street-railway workers:					
Cincinnati, Ohio—					
2-man cars, motormen and conductors—		*Per hour*	*Per hour*		
First 3 months	July 1	.56	.50	[4] 8	[4] 8
Next 9 months	do	.59	.53	[4] 8	[4] 8
Thereafter	do	.61	.55	[4] 8	[4] 8
1-man car and coach operators—					
First 3 months	do	.63	.57	[4] 8	[4] 8
Next 9 months	do	.66	.60	[4] 8	[4] 8
Thereafter	do	.68	.62	[4] 8	[4] 8
Holyoke, Mass.—					
1-man car operators	May 1	.71	.63	(1)	(1)
2-man car operators	do	.63	.55	(1)	(1)
Portland, Oreg.—					
1-man car and bus operators	June 29	.66	.66	48	36
2-man car operators	do	.60	.60	48	36
Clerks, inspectors, and dispatchers	do	(1)	(1)	48	36
Wichita, Kans.—					
Motormen	May 1	.45–.50	.35–.45	(1)	(1)
Bus operators	do	.43–.45	.35–.40½	(1)	(1)
Textiles:		*Per week*	*Per week*		
Sheeting workers, Salem and Peabody, Mass.	July 18	[6] 20.17	[6] 18.16	35	35
Municipal:					
Acadia Parish, La., teachers	July 1	(1)	[7]	(1)	(1)
Bloomington, Ind	May 1	(1)	[8]	(1)	(1)
Effingham, Ill	do	(1)	[3]	53	50
		Per hour	*Per hour*		
Hudson, Mich., common labor	do	.40	.30	(1)	(1)
Indianapolis, Ind., school employees	July 1	(1)	[9]	(1)	(1)
Miami Beach, Fla	do	(1)	[9]	(1)	(1)
Michigan City, Ind., school employees	Aug. 1	(1)	[3]	(1)	(1)
Minneapolis, Minn., city laborers	June 1	.68¾	.62½	44	36
Terre Haute, Ind., school employees	Aug. 1	(1)	[3]	(1)	(1)
		Per year	*Per year*		
Wildwood, N. J., policemen	May 24	$2,000	$1,200	48	48

[1] Not reported.
[3] 10 per cent reduction.
[4] Hours per day.
[6] Average.
[7] 15 per cent reduction.
[8] 5 to 20 per cent reduction.
[9] 10 to 20 per cent reduction.

Salaries in Public Libraries, January, 1932

SALARIES in public libraries, as of January 1, 1932, in cities of the United States having more than 5,000 population are presented in Part I of the June, 1932, number of the Bulletin of the American Library Association. The same issue also gives salaries which were in effect at the beginning of this year in university and college libraries, small college libraries, teachers' college and normal-school libraries, and junior and senior high-school libraries.

Of the 289 libraries included, only 40 reported wage cuts. The returns were made, however, as of January 1, 1932. The chairman of the American Library Association committee on salaries points out

that since that date "conditions have changed with lightning rapidity. The nation-wide demand for cuts in the salaries of all public employees—national, State, and municipal—has taken on a tremendous momentum."

The following table, taken from the publication referred to, shows the salaries paid in specified occupations in the libraries in cities of over 200,000 population:

SALARIES PAID FOR SPECIFIED OCCUPATIONS IN LIBRARIES IN CITIES OF OVER 200,000 POPULATION, JANUARY 1, 1932

City	Librarian	Department heads			Branch librarians			Cataloguers		
		Number	Minimum	Maximum	Number	Minimum	Maximum	Number	Minimum	Maximum
Akron, Ohio	$4,500	5	$2,400	$2,600	7	$1,500	$2,000	2	$1,500	$1,900
Atlanta, Ga	3,600	6	1,500	2,160	6	1,680	1,680	4	1,440	1,500
Baltimore, Md.[1]	7,000	12	1,200	3,200	27	1,320	1,620	14	900	1,680
Birmingham, Ala	3,600	12	1,134	2,700	7	1,020	1,620	4	810	1,440
Boston, Mass	10,000	14	2,080	4,000	33	1,560	3,000	15	1,456	1,924
Brooklyn, N. Y	10,000	10	2,340	4,200	33	2,040	2,820	12	1,440	2,100
Buffalo, N. Y	8,000	14	2,100	3,100	14	1,500	2,000			
Chicago, Ill		13	2,700	5,220	44	1,740	3,420	5	2,340	2,880
Cincinnati, Ohio		13	1,960	3,000	10	1,380	1,880	13	900	1,800
Dallas, Tex	3,000	5	1,380	2,040	4	1,200	1,500	3	1,360	1,620
Dayton, Ohio	6,000	13	1,800	3,000	6	1,700	2,460	4	1,980	2,280
Denver, Colo	6,000	12	1,800	2,500	14	1,200	1,560	6	1,200	1,740
Detroit, Mich	8,500	16	[2] 2,340 [3] 2,640	[2] 2,760 [3] 3,960	22	2,100	2,580	14	1,680	2,160
Houston, Tex	3,600	5	1,350	1,800	3	1,080	1,350	1	1,188	
Indianapolis, Ind	7,000	12	1,980	3,000	[4] 16	1,260	2,100	6	1,530	2,040
Jersey City, N. J	7,500	7	2,580	2,580	17	1,800	2,580	6	2,040	2,040
Kansas City, Mo	6,500	8	2,400	2,700	14	1,620	2,264	6	1,260	1,740
Los Angeles, Calif	8,500	21	2,400	3,120	37	1,980	2,700	15	1,320	1,920
Louisville, Ky	[5] 6,000	7	2,220		7	1,680	1,800	4	960	1,440
Memphis, Tenn	5,460	4	1,500	2,520	7	720	1,200	5	1,080	1,500
Milwaukee, Wis	7,000	10	2,400	4,500	18	1,620	2,220	5	1,680	2,220
Minneapolis, Minn	6,000	11	2,400	3,000	22	1,900	2,500	3	1,700	1,800
Newark, N. J	10,000	9	2,200	3,725	11	1,800	3,100	3	2,000	2,200
New Orleans, La	4,500	6	960	1,560	6	1,020	1,200	2	960	960
New York Circulation [6]	[7] 8,000	9	1,800	4,380	[8] 46	1,980	2,820	10	1,380	2,520
Oakland, Calif	6,000	5	1,920	2,100	14	1,680	1,800	1	1,800	
Omaha, Nebr	3,600	8	1,380	2,040	4	1,320	1,680	2	1,200	1,920
Philadelphia, Pa		20	1,700	2,000	31	1,700	1,700	3	1,200	1,600
Pittsburgh, Pa	[9] 8,000	10	2,700	4,000	9	1,920	2,160	6	1,380	2,000
Providence, R. I		10	1,612	2,444	13	1,500	1,924	5	1,144	2,080
Queens, Jamaica, N. Y	12,000	11	2,400	6,000	17	1,980	2,820	7	1,740	2,160
Rochester, N. Y	6,000	2	3,200	3,200	13	1,600	2,400	4	1,600	1,900
St. Louis, Mo	10,000	16	1,710	3,600	14	1,770	2,190	18	1,380	2,100
San Antonio, Tex	3,000	4	1,440	1,800	5	960	1,380	2	960	960
San Francisco, Calif	4,800	11	2,100	3,000	17	1,560	2,100	5	1,680	1,920
Seattle, Wash	7,500	6	2,160	2,820	10	1,500	2,160	2	1,500	1,680
Syracuse, N. Y	5,000	11	1,500	2,500	6	1,500	2,500	3	1,300	1,700
Toledo, Ohio	6,000	6	2,400	2,700	13	1,600	2,200	4	1,600	2,200
Washington, D. C	8,000	5	3,200	3,400	4	2,000	3,300	6	1,560	2,100

[1] Figures as published in July, 1931, issue of Bulletin of American Library Association.
[2] Small libraries.
[3] Large libraries.
[4] Not including 3 special branches in which salaries range from $1,860 to $2,920.
[5] And $1,000 additional by arrangement with university.
[6] Boroughs of Bronx, Manhattan, and Richmond.
[7] Chief of circulation department.
[8] Central circulation branch not included.
[9] $6,000 as librarian; $2,000 as director of library school.

The report gives like data for assistant librarians, division heads, librarians of subbranches, first assistants, children's librarians, and professional and nonprofessional assistants. It also gives for each of the cities information as to length of the annual vacations, special holidays, full-time hours per week, compensation for work on Sundays and holidays, the data of the last general salary increase, the reduction, if any, in the salaries of the library staff, and the reduction in the library budget.

Six-Hour Shifts in Plants of Owens-Illinois Glass Co.

ACCORDING to a recent press announcement confirmed by a letter from an official of the company, the Owens-Illinois Glass Co. has recently changed its daily operating schedule from three 8-hour shifts to four 6-hour shifts per day, in order to provide employment for a larger number of workers. The hours of salaried workers in plant offices and in the general office remain the same, averaging about eight hours per day. Several reductions have been made in the salaries of these workers, and the hourly employees who are on a wage and production bonus plan have had their compensation reduced to correspond to the reduction in the number of hours.

The secretary of the company states that the change is working out very satisfactorily in that it is accomplishing what it was intended to do; that is, provide employment for additional workers.

Mine Wages in Idaho, 1931

AT THE close of the calendar year 1931 very few of the producing mines in Idaho were in operation, and none of those operating was on a 7-day producing basis. On the whole, from a labor viewpoint that year was one of the worst ever experienced in the State, according to the annual report of the inspector of mines of Idaho for 1931. There was a surplus of labor throughout the 12 months covered by the report, and the turnover was very slight, so that the mine operators were assured of a constant force of workers without the inconveniences of breaking in inexperienced men.

Complete and accurate statistics of the number of men employed in the mines are practically unobtainable. Substantial numbers are employed by mine prospectors and small companies which do not operate continuously and do not make reports to the mine inspector. Moreover, the different reports filed by the companies vary in regard to the number of days. The average number of men reported on the pay roll was 3,500, to which it is estimated 1,000 may be added to include those employed by lessees, prospectors, and small companies filing no reports, thus bringing the total to 4,500, which is considered a conservative figure.

According to an agreement of November 6, 1925, the wages in Coeur d'Alene district were subject to a monthly adjustment, with a bonus rate varying with the selling price of lead in New York. In 1931, however, the price of lead fell so rapidly that if this bonus arrangement had been followed the remuneration of the miners in this district would have been cut to a figure wholly out of proportion to wages in other sections of the State, and below the living costs. The parties to the plan, therefore, set aside the agreement, and on May 16, 1931, wages were cut to those reported in the first column of the following table, which are based on lead's selling up to 7½ cents per pound. The wage scale maintained for the remainder of 1931 in other parts of the State is given in the second column.

DAILY WAGES IN MINING INDUSTRY IN IDAHO, 1931, BY OCCUPATION

Occupation	Rate per day		Occupation	Rate per day	
	Coeur d'Alene district, May 16–Dec. 31, 1931	Rest of State, 1931 [1]		Coeur d'Alene district, May 16–Dec. 31, 1931	Rest of State, 1931 [1]
Blacksmiths	$6.00	$6.00	Motormen	$5.25	$5.00
Blacksmiths' helpers	4.75	5.00	Nipper men	4.50	4.50
Cagers	5.50	5.25	Ore sorters	4.25	4.25
Carmen	4.50	4.50	Pipe and track men	5.25	5.25
Carpenters	6.00	6.00	Pump and compressor men	5.50	5.00
Electricians	5.50	5.50	Shift bosses	6.25	6.00
Machinists	5.75	6.00	Shovelers	4.50	4.50
Machinists' helpers	5.00	5.00	Small hoist men	5.25	5.25
Main hoist men	5.75	5.75	Surface laborers	4.25	4.50
Millmen	5.00	5.00	Timber helpers	4.75	4.75
Mill repair men	5.50	6.00	Timbermen	5.50	5.50
Mill swampers	4.00	4.50	Trainmen	4.50	4.50
Miners	5.00	5.00			

[1] A few companies operating in remote sections of the State had a wage scale 25 cents above that reported in this column.

The average cost of board and lodging at company boarding houses, hotels, and private homes is from $1.25 to $1.50 a day. Various companies have built homes which they are renting to their married employees, and certain large companies aid their employees in home building.

Wages of Common and Semiskilled Labor in Louisiana, 1929 and 1931

THE following wage scales for common and semiskilled workers in Louisiana as of December 31, 1929, and December 31, 1931, are taken from the fifteenth and sixteenth biennial reports of the department of labor and industrial statistics of that State for the years 1929–30 and 1931–32, respectively:

DAILY WAGE RATES AND HOURS OF COMMON AND SEMISKILLED LABOR IN LOUISIANA, DECEMBER 31, 1929, AND DECEMBER 31, 1931

Class of worker	1929		1931	
	Hours per day	Daily wage rate	Hours per day	Daily wage rate
Building laborers	8	$2.00	----	----
Canners	10	1.25	10	$1.00
Clothing-factory workers	10	1.25	10	1.00
Common labor	----	----	10	1.50
Cottonseed-product workers	12	2.25	12	2.00
Ice, light, and bottling workers	10	1.50	10	1.25
Workers in—				
Lumbering plants	10	1.75	10	1.50
Naval stores	10	1.75	10	1.50
Oil fields	10	3.00	10	2.50
Rice mills	12	2.00	12	1.50
Sugarcane fields and farms	12	1.25	12	1.00
Sugar mills (factory help)	12	2.50	12	2.00

Wages and Wage Reductions in the Brussels Consular District

A REPORT from Walter H. Sholes, American consul at Brussels, Belgium, dated July 2, 1932, gives the average wages paid in a number of important industries and the average total reductions in the various branches of industry since November, 1929, when the peak in wages was reached.

As the goods produced in the country are mainly for export, Belgium has suffered severely from the world economic crisis. The value of exports in the first three months of 1931 was $169,128,400 and for the corresponding period in 1932, $118,020,000. This fall in production was accompanied by considerable unemployment, the percentage of the total number of insured workers who were wholly unemployed on May 1, 1932, amounting to 18.8 per cent, while an additional 22.6 per cent were employed on part time, as compared with 10 and 15.6 per cent, respectively, on May 1, 1931. To meet the situation produced by the decreased demand for goods, production has been slowed down, overhead charges have been severely cut, and wages have been drastically reduced.

During the financial readjustment of the country in the years 1918 to 1921 wages followed the rise in the cost of living only slowly. From 1922 to 1925, prior to the fall of the franc, the index of wages was approximately the same as the index of retail prices, while during the period in which the franc was stabilized, 1926–27, the retail price index was always higher than the index of wages. During the prosperous years of 1928 and 1929, however, wages rose rapidly. In November, 1929, the wage index was 16.7 per cent above the retail price index, but from the last quarter of 1929 to May, 1932, there has been a steady downward trend in the wage rates.

Special inquiry was made of the principal local industries to determine, in addition to the extent of the wage reductions, the periods when they had been applied and the means by which they had been brought about; that is, whether automatically adjusted on the basis of changes in the retail price index; by the decision of special joint commission; by decision of employers, either individually or jointly; or through the operation of the law of supply and demand.

In a large number of industries there are agreements between employers and employees by which wages are adjusted according to an increase or decrease of a certain number of points in the retail price index. These industries include coal mines, textiles, the plate-glass and tumbler industry, quarries, cement, paper, furniture, leather, foodstuffs, electric light and power, clothing, and forestry. In these industries the wage reductions, usually not amounting to more than 5 per cent, have been made at fairly frequent intervals.

The following table shows the number of employees, the average total reductions in wages since 1929, and the actual wages paid in various occupations on June 15, 1932:

NUMBER OF EMPLOYEES, AVERAGE REDUCTION IN WAGES (NOVEMBER, 1929, TO JUNE, 1932), AND ACTUAL WAGES IN VARIOUS OCCUPATIONS, JUNE 15, 1932, IN BRUSSELS CONSULAR DISTRICT

Industry and occupation	Number of employees	Per cent of reduction in wages	Average wage per hour
Metallurgical	203, 143	10. 0–18. 8	
Drillers			$0. 135
Smelters			[1] . 850
Foundry men			. 144
Stokers			. 190
Coal mines	182, 000	25. 7	
Seam workers			[1] 1. 29
Surface laborers			[1] . 79
Chemical, including artificial silk	62, 163	10. 0–25. 0	
Males			. 18
Females			. 10
Food and drink	56, 321		
Brewery workers			. 20
Construction	40, 260	19. 0	. 15
Quarries	37, 250	15. 0–25. 0	. 14
Transport [2]	123, 850	10. 0	
Dockers			. 18
Chauffeurs			. 19
Wood and furniture	36, 073	10. 0–18. 0	
Joiners			. 16
Cabinetmakers			. 16
Chair makers			. 16
Glass	35, 240	15. 0–18. 0	
Window and plate glass makers			[1] 1. 40
Tumbler-glass makers			[1] 1. 25
Pottery, cement, and brick	28, 400	10. 0–25. 0	
Pottery workers			. 14
Cement workers			. 14
Brickmakers			. 13
Leather	27, 350	13. 0–20. 0	
Leather workers, male			$0. 16
Leather workers, female			. 09
Clothing	24, 200	17. 5	
Clothing workers, male			. 15
Clothing workers, female			. 08
Art and precision	22, 267	[3] 50. 0	
Art workers (different industries)			.14–.28
Paper	14, 000	5. 0–18. 0	
Paper makers, male			. 16
Paper makers, female			. 085
Printing	12, 805	15. 5	
Male workers			. 19
Female workers			. 09
Tobacco	9, 770	[4] 10. 0	
Male workers			. 14
Female workers			. 09
Textiles	164, 495	18. 0	
Male workers			. 09
Female workers			[5] 3. 36
Agriculture	263, 000	10. 0	
Agricultural workers			[6] 14.00
Gardeners			. 14

[1] Per 8-hour day.
[2] Port of Brussels.
[3] Diamond workers.
[4] Estimated.
[5] Per 48-hour week.
[6] Per month, board and lodging in addition.

The industries in which wages are fixed by agreement between employers and workers through the offices of the joint commission (*comité paritaire*) are the metallurgical industries, mechanical construction, metal trades, glass, and cement industries, while those in which wage reductions have taken place either by the action of employers or by private agreements between employers and workers are the ceramic and brick industries, wood, artificial silk, and chemical industries, and foodstuffs and beverages. Industries in which the condition of the labor market has particularly affected the wage scales include building construction, the diamond industry, hosiery, boot and shoe industry, and agriculture. In general it was found that in the more important industries the reduction in wages was effected mainly through conventions between employers and workers, either by means of direct negotiations or through the medium of the joint commission.

Wages in Para, Brazil, in 1931

A COMMUNICATION from the American consul, George E. Seltzer, at Para, Brazil, dated May 5, 1932, contains daily and monthly wages paid in specified occupations in the State of Para, as given in the following table:

WAGES IN SPECIFIED OCCUPATIONS IN PARA, BRAZIL, 1931

[Conversions into United States currency on basis of milreis at par=11.96 cents; average exchange rate for 1931 was 7 cents]

Occupation	Wages		Occupation	Wages	
	Brazilian currency (milreis)	U. S. currency		Brazilian currency (milreis)	U. S. currency
	Per day	*Per day*		*Per month*	*Per month*
Nut shellers, female [1]	2.0–4.0	$0.24–$0.48	Correspondents with knowledge of languages	800–1,500	$95.68–$179.40
Agricultural laborers—			Salesmen	600–1,000	71.76–119.60
With meals	1.5–2.5	.18–.30	Shipping clerks	200–600	23.92–71.76
Without meals	3.0–3.5	.36–.42	Salesmen, traveling	[3] 1,000	[3] 119.60
Factory workers, female	1.5–3.0	.18–.36			
Carpenters, skilled [1]	5.0–8.0	.60–.96	*Ship crews*		
Masons, skilled [1]	5.0–8.0	.60–.96			
Mechanics, skilled [1]	5.0–8.0	.60–.96	Engineers, chief	590	70.56
Carpenters, skilled [2]	4.0–7.0	.48–.84	Engineers, second	445	53.22
Masons, skilled [2]	4.0–7.0	.48–.84	Engineers, third	385	46.05
Mechanics, skilled [2]	4.0–7.0	.48–.84	Stewards, chief	290	34.68
Bakers	4.0–5.0	.48–.60	Stewards	135	16.15
Motormen and conductors [1]	6.0–9.0	.72–1.08	Bakers	135	16.15
Stevedores	10.0	1.20	Cooks, first	265	31.69
Rubber stevedores	15.0	1.79	Cooks, second	150	17.94
			Helpers	90	10.76
Bookkeepers and managers	*Per month*	*Per month*	Seamen, able	170	20.33
	800–1,200	95.68–143.52	Seamen, ordinary	130	15.55
Bookkeepers, assistant	200–600	23.92–71.76	Firemen	200	23.92
			Coal shovelers	140	16.74

[1] In city of Belem. [2] In the interior of Para. [3] Plus expenses.

Earnings in the Iron and Steel Industry in Germany, October, 1931

THE investigation of actual earnings in the iron and steel industry in Germany, undertaken by the Federal Statistical Office in October, 1931, covered 44 establishments employing 40,635 workers in the localities of Rheinland-Westphalen, Siegerland, Osnabruck und Peine, Oberpfalz, Sachsen, and Oberschlesien.[1]

Table 1 shows the actual earnings and hours of labor in October, 1931, while a comparison of these earnings and hours with those in October, 1928, is found in Table 2. The figures for October, 1931, in the two tables are not identical because of differences in the localities and the numbers of workers covered.

[1] Germany. Statistisches Reichsamt. Wirtschaft und Statistik, Berlin, 2. Juni-Heft, 1932, pp. 373–377.

TABLE 1.—AVERAGE ACTUAL EARNINGS AND HOURS OF LABOR IN THE IRON AND STEEL INDUSTRY OF GERMANY IN OCTOBER, 1931

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Department and occupation	Basis of payment	Number of employees	Hours per week	Hourly earnings [1]		Agreement, hourly wages		Per cent actual earnings form of union rate	Average weekly earnings	
				German currency	U. S. currency	German currency	U. S. currency		German currency	U. S. currency
Blast furnaces:				*Pf.*	*Cts.*	*Pf.*	*Cts.*		*Marks*	
Furnace men—										
First hands	Time	25	43.4	99.6	23.7	70.0	16.7	133.6	43.27	$10.30
Second hands	do	21	40.3	80.1	19.1	63.7	15.2	113.2	32.31	7.69
First hands	Piece	79	50.6	103.6	24.7	80.5	19.2	119.9	52.39	12.47
Second hands	do	85	49.9	95.0	22.6	79.2	18.8	112.1	47.39	11.28
Third hands	do	67	49.1	90.0	21.4	77.5	18.4	108.9	44.14	10.51
Other workers	Time	954	45.3	78.0	18.6	------	------	-------	35.37	8.42
	Piece	3,712	45.7	92.0	21.9	------	------	-------	42.06	10.01
Total		[2] 4,949	45.8	89.6	21.3	------	------	-------	41.01	9.76
Steel works:										
Furnace men—										
Second hands	Time	44	46.7	78.4	18.7	61.8	14.7	121.7	36.57	8.70
Third hands	do	33	47.4	78.6	18.7	64.2	15.3	117.1	37.30	8.88
First hands	Piece	315	45.4	127.5	30.3	88.0	20.9	138.3	57.84	13.77
Second hands	do	213	43.7	107.4	25.6	81.1	19.3	126.0	46.95	11.17
Third hands	do	211	41.5	101.7	24.2	76.9	18.3	126.3	42.17	10.04
Other workers	Time	501	46.3	86.0	20.5	------	------	-------	39.82	9.48
	Piece	6,103	42.4	98.3	23.4	------	------	-------	41.63	9.91
Total		[2] 7,438	42.8	98.8	23.5	------	------	-------	42.34	10.08
Rolling mills and forges:										
First rollers	Piece	1,081	39.1	127.9	30.4	83.6	19.9	148.2	50.04	11.91
Second rollers	do	795	36.9	110.6	26.3	76.3	18.2	142.5	40.80	9.71
Third rollers	do	797	37.8	99.4	23.7	73.7	17.5	131.8	37.57	8.94
Other workers	Time	1,357	44.6	78.0	18.6	------	------	-------	34.76	8.27
	Piece	12,372	39.5	94.1	22.4	------	------	-------	37.20	8.85
Total		[2] 16,424	39.7	95.8	22.8	------	------	-------	38.05	9.06
Foundries:										
Skilled workers	Time	191	45.4	85.2	20.3	73.2	17.4	110.7	38.66	9.20
	Piece	1,140	44.3	92.8	22.1	79.5	18.9	111.2	41.07	9.77
Semiskilled workers	Time	351	44.3	76.9	18.3	64.4	15.3	112.0	34.06	8.11
	Piece	1,330	44.1	88.0	20.9	72.8	17.3	115.8	38.85	9.25
Unskilled workers	Time	324	44.5	71.3	17.0	61.5	14.6	110.2	31.71	7.55
	Piece	278	44.6	82.8	19.7	68.6	16.3	115.0	36.91	8.78
Total		3,614	44.3	86.4	20.6	72.8	17.3	113.0	38.28	9.11
Repair shops:										
Skilled workers	Time	2,273	45.5	89.4	21.3	75.5	18.0	113.1	40.72	9.69
	Piece	3,706	42.1	92.8	22.1	82.4	19.6	107.8	39.04	9.29
Semiskilled workers	Time	629	44.5	79.0	18.8	67.4	16.0	112.3	35.13	8.36
	Piece	1,008	42.8	87.9	20.9	75.1	17.9	112.5	37.64	8.96
Unskilled workers	Time	230	43.0	73.6	17.5	62.1	14.8	113.4	31.62	7.53
	Piece	364	49.1	93.8	22.3	68.8	16.4	127.9	46.11	10.97
Total		8,210	43.7	89.7	21.3	77.1	18.3	111.3	39.15	9.32
Grand total		40,635	42.3	93.4	22.2	------	------	-------	39.45	9.39

[1] Including all agreement supplements.

[2] Not exact sum of items.

TABLE 2.—AVERAGE ACTUAL EARNINGS AND HOURS OF LABOR IN THE IRON AND STEEL INDUSTRY OF GERMANY IN OCTOBER, 1931, AND OCTOBER, 1928

[Conversions into United States currency on basis of mark=23.8 cents]

Department and occupation	Basis of payment	Hourly earnings [1]			Weekly hours of labor		Weekly earnings		
			October, 1931					October, 1931	
		October, 1928	Amount	Per cent of October, 1928, earnings	October, 1928	October, 1931	October, 1928	Amount	Per cent of October, 1928, earnings
Blast furnaces:									
Furnace men—		*Cts.*	*Cts.*						
First hands	Piece	23.2	25.4	90.0	54.0	48.4	$15.23	$12.29	80.6
Second hands	do	25.3	23.1	91.3	53.3	49.2	13.51	11.36	84.1
Third hands	do	24.7	22.1	89.6	53.3	48.0	13.16	10.61	80.6
Other workers	Time	21.4	18.7	87.6	57.8	43.8	12.32	8.21	66.6
	Piece	25.0	22.0	88.2	56.3	44.8	14.02	9.85	70 2
Steel works:									
Furnace men—									
First hands	Piece	34.0	30.9	91.0	51.3	44.3	17.47	13.69	78.4
Second hands	do	27.8	25.9	93.1	49.8	42.3	13.86	10.95	79.0
Third hands	do	26.0	24.6	94.4	50.0	39.5	12.88	9.71	75.4
Other workers	Time	21.1	21.4	101.5	51.8	44.0	10.93	9.42	86.2
	Piece	25.5	24.0	94.1	50.5	40.0	12.90	9.60	74.4
Rolling mills and forges:									
First rollers	Piece	37.1	31.1	83.7	49.8	37.1	18.43	11.52	62.5
Second rollers	do	33.1	26.6	80.5	48.5	33.9	16.02	9.02	56.3
Third rollers	do	28.1	23.6	83.8	48.3	35.0	13.56	8.23	60.7
Other workers	Time	20.3	18.9	93.2	53.0	41.7	10.75	7.87	73.2
	Piece	26.2	22.8	87.4	50.8	38.0	8.51	8.68	65.4
Foundries:									
Skilled workers	Time	22.7	22.8	100.4	55.5	45.5	12.57	10.33	82.2
	Piece	26.6	24.2	91.0	52.8	42.7	14.02	10.33	73.7
Semiskilled workers	Time	20.6	19.5	94.7	52.8	44.9	10.87	8.74	80.4
	Piece	24.6	22.1	90.0	52.8	41.6	12.94	9.20	71.1
Unskilled workers	Time	18.2	17.4	95.8	51.5	44.7	9.35	7.78	83.2
	Piece	23.4	19.7	84.3	52.3	43.0	12.24	8.48	69.3
Repair shops:									
Skilled workers	Time	22.1	21.7	98.3	55.3	43.7	12.24	9.49	77.6
	Piece	24.2	22.7	94.0	55.8	40.4	13.44	9.17	68.2
Semiskilled workers	Time	19.3	18.9	98.4	55.5	42.3	10.68	8.02	75.1
	Piece	22.0	21.3	96.9	54.8	41.8	12.01	8.91	74.1
Unskilled workers	Time	17.1	17.5	102.6	54.5	41.3	9.32	7.24	77.7
	Piece	22.4	22.4	100.1	53.3	48.7	11.93	10.91	91.4

[1] Including all supplements.

Thus, during the three years from October, 1928, to October, 1931, the average hourly earnings dropped by 9.1 per cent. At the same time the weekly hours of labor dropped on an average by 22.9 per cent, so that the decrease of average weekly earnings amounted to 29.9 per cent.

Five-Day Week in British Industry

FOR some years past the annual report of the British chief inspector of factories and workshops has contained discussions of the 5-day week in industry, which seems to have been growing in favor. At one time the system was used merely as a form of short-time working during periods of bad trade, but the facts given in the reports relate only to establishments in which it appears to have been adopted as a permanent policy and in which the hours previously worked on Saturday have been partially or wholly distributed over other days in the week. The movement is widespread, for the system

is found in use all over the country and in most of the leading industries. The report for 1930 gave a list of the industries in which it was known to be in use, with particulars as to the number of employees affected and the weekly hours worked. The table, it was explained, could lay no claim to completeness, since in some localities a continuous development in the use of the system was in progress. This view is confirmed by the statement in the 1931 report that "at least 100 firms engaged in a wide variety of industries and employing large numbers of workers have been found working the 5-day week, in addition to those included in the table in last year's report." The table, as given, is as follows:

NUMBER OF ESTABLISHMENTS USING 5-DAY WEEK, NUMBER OF EMPLOYEES, AND WEEKLY HOURS WORKED BY INDUSTRY

Industry	Number of establishments	Number of employees			Total weekly hours
		Men	Women	Young persons	
Textile industries					
Cotton spinning and weaving	8	535	1,459	239	44 -48
Wool spinning and weaving	2	82	212	38	47½-48
Print, bleach, and dye works	56	3,527	1,041	460	[1] 45½-48
Flax	3	30	156	14	48
Hosiery	3	230	390	120	47 -48
Lace making	1	10	----------	----------	45
Total	73	4,414	3,258	871	----------
Nontextile industries					
Brick	19	2,010	9	504	47 -48
Metal	53	11,397	238	780	40 -48
Engineering works	12	1,699	59	261	46 -47
Railways and street railways	9	5,486	961	560	40 -52
Leather	8	151	182	40	37½-48
Woodworking	5	80	80	94	40 -49½
Light metal trades	27	1,346	2,147	767	----------
Paper, printing, and stationery	46	4,006	1,914	725	41½-48
Glass	2	36	62	14	47½
Furniture, wood and metal	207	12,958	445	564	44 -48
Paints and colors	4	184	62	19	47 -48
Laundries	16	82	512	180	41 -48
Rubber	3	2,332	1,673	273	48
Chemicals	2	30	50	50	47 -47½
Candles	1	180	70	150	48
Musical instruments	8	734	349	153	47 -47½
Food	24	4,335	6,168	1,379	42½-50
Wearing apparel	198	1,059	7,028	1,227	42½-48
Sports goods	1	80	----------	12	47
Miscellaneous trades	26	1,751	2,633	806	40 -48
Total	671	49,936	24,642	8,558	----------
Grand total	744	54,350	27,900	9,429	----------

[1] 56 hours for men.

The table shows that the adoption of the system depends neither upon the industry nor the size of the establishment. There is scarcely a large industry in the country unrepresented, while the establishments range from small to great, the combined total of employees being somewhat over 90,000. "It is more prevalent in and around London and in the southern part of the Kingdom than in Scotland and the north, and is also somewhat more prevalent in what may be described as the more modern industries."

The reasons for adopting the custom vary considerably. In the wholesale dressmaking trade in the West End of London it is due largely to the fact that the work places are situated in a district no longer residential, and the workers, who are drawn from a long distance, are unwilling to make the journey for a few hours' work on Saturday morning. In this trade "the system has become so general that firms who have previously worked six days are changing over in order to attract labor. Women like the 5-day week and go where it is in operation." In other industries different reasons for the change were assigned.

The reasons given for adoption of the system by individual firms vary, but in many instances it was introduced during the years after the war when adjustments were being made in hours, and they were reduced in many trades from anything between 55 and 51 weekly to 48 or 47. Many firms adopted the 5-day week as the simplest method of making this adjustment. Those that have adopted it later appear to have done so because they realized the advantages and had been impressed with the disadvantages of Saturday work. In some few cases it was first tried as a temporary measure for a short time, but when trade revived both employers and employed were unwilling to revert to Saturday work, and so the hours were extended on the other days of the week.

The report for 1931 gives an instance of the adoption of the system as the result of an experience which contradicts the usual view as to the value of rest periods:

In a factory in which radio sets are made the change occurred in the last few months of the year. The hours worked are now 45, but payment is made for 47 as previously worked. This concession was granted as the change involved giving up the 10 minutes' break each morning and afternoon previously allowed for refreshments and smoking. Last year the firm had much work returned, and after investigation they came to the conclusion that frequent breaks were a mistake for persons performing very delicate operations. By discontinuing the intervals and substituting a 5-day week these breaks were reduced from 44 to 20. This is rather interesting, as the firm considers industrial psychology, and only arrived at this decision after careful investigation. The faults in the returned sets usually consisted of a screw not being properly turned or a joint left unsoldered. The firm maintains that since the reduction in the number of intervals the output has increased and the standard of work improved.

Hours

In 25 per cent of the establishments shown in the above table the actual hours worked are around 45, or an average of 9 hours a day, while in 64 per cent the hours are from 47 to 48. In 48 cases, including 43 in which men only are employed and in which 56 hours a week are worked, the hours exceed 48, and in 25 cases they are less than 45, including 5 instances of a 40-hour week. The conclusion is drawn from this that in the great majority of cases the change to a 5-day week has been brought about without interference with the normal total of hours. The manner in which the weekly total of hours is adjusted differs.

The Saturday hours are sometimes distributed equally over the other days of the week, but more generally the extra hours are added to Tuesday, Wednesday, and Thursday, these being recognized as the best days for output.

The hours are generally added at the end of the day, but in some instances an earlier start is made. In the clothing industry in the West End of London, 9 a. m. was the usual starting time before the advent of the 5-day week, when it was changed to 8.30 a. m., and incidentally allowed workers to make use of workmen's tickets.

Wages and Production

As HOURS have generally not been changed to any extent, there has been little need for alteration of wages. "There is no evidence of any change in piecework rates, but in a few cases time rates have been adjusted, and some very slight reductions have been made." Production appears to have increased where the system has been given a fair trial.

In a brass-casting shop under the old system, 8 pots of metal could be melted on the first five days of the week and 2 on Saturday, making a total of 42 for the week. Now 9 pots are melted on each of the five days, making a total of 45. In the case of a match factory where a reduction has been made of total hours worked from 47 to 40, the production on piecework is said to be practically the same. The wages of time workers were adjusted by agreement with the trade-union concerned. In an envelope factory, production has increased by 5 per cent. In a boot factory where a majority of the workers are pieceworkers, they earn as much in a 46-hour week at the same rates as they did formerly in a 54-hour week of 5½ days. In a furniture factory in which the hours were formerly 54 and were reduced on the introduction of the 5-day week to 47½ and later to 45, the output is said to be the same as when 54 hours were worked. In a cycle works a definite increase in production, amounting to 19 per cent in both plating and enameling departments, is reported. In the enameling department under the old system 4 stoves were produced each day, and 1 on Saturdays, making 21, while now 5 stoves per day, or 25 weekly, are produced. The management attributes this result entirely to rearrangement of hours and not to improved methods of production.

On the other hand, a fall in production has been noticed in a few cases, particularly in the nut and bolt trade, where the work is mainly automatic. Rather strong evidence that the system does not generally reduce output is found in the fact, noted in the report for 1931, that firms having once adopted this system rarely revert to Saturday working "except in a few cases, where the nature of the work is such that it is inconvenient to have the factory closed on Saturdays."

Advantages of the System

THERE is a very general feeling that the system is advantageous to both employers and employed.

From the employers' standpoint the advantages claimed are (1) reduction in overhead charges, especially in connection with steam plants of all descriptions, traveling ovens, furnaces, metal pots, acid baths, etc., resulting in lower cost of production; (2) complete cessation of production work on Saturdays, allowing time for maintenance work and repairs, cleaning of plant, etc., to be carried out by the maintenance staff during their normal hours, and obviating the necessity for overtime work; (3) delivery of orders speeded up by a total of half a day over the week; (4) absenteeism reduced and timekeeping on the whole improved.

From the workers' point of view the advantages seem to center around the long week end, which affords opportunity for recreation and sport. This has a very special application in those areas where the workers reside at a long distance from their work places (as is so frequent in and around London) and an undue proportion of their time may be spent in traveling. Fares may also be saved on one day in the week; it is also a boon to workers with home duties.

Improvement in health is noted as a result of the long week end, and in the case of stereotypers, health reasons, particularly having regard to the use of lead in the industry, appear to have been the determining factors in making the change.

Wages in the Mining Industry in Greece in 1930

THE annual report of the Bureau of Mines [1] of Greece for the year 1930 gives the total number of man-days worked in the mines and quarries and the total amount of wages, from which the following average daily earnings have been computed:

	Cents
Metal mines	74. 1
Lignite mines	58. 8
Smelting and refining	77. 2
Quarries	73. 0
Total	72. 9

General Survey of Wages in Japan, 1931 [2]

IN CONSIDERING labor conditions in Japan it must be remembered that the relation between employer and employee is still partly feudal and paternalistic.

Bonuses are paid in most industries, especially in smaller establishments. Establishments such as textile mills and others, employing a large proportion of female labor, frequently provide quarters and board for woman workers in addition to stipulated wage rates.

Although labor unions in Japan have no legal status, their organization and growth have been steady, and wage scales in certain industries are the result of collective bargaining.

Table 1 gives the average daily basic wage in various industries, compiled from data from 800 establishments in 13 centers in Japan as reported in the fall of 1931.

[1] Greece. Ministère de l'Économie Nationale. Direction du Service des Mines. Inspection des Mines. Statistique de l'industrie minière de la Grèce pendant l'année 1930.

[2] This report was prepared, in the late fall of 1931, by Arthur Garrels, American consul general, Tokyo; Henry B. Hitchcock, consul, Nagasaki; H. Merrel Benninghoff, vice consul, Nagoya; and Hayward G. Hill, vice consul, Taihoku, Taiwan (Formosa).

TABLE 1.—AVERAGE BASIC WAGE IN SPECIFIED INDUSTRIES IN JAPAN IN 1931

[Conversions into United States currency on basis of yen=50 cents]

Industry and occupation	Average basic wage per day [1]		Length of—	
	Men	Women	Working-day	Daily recess
Textile industry:				
Silk mills—			*Hrs. min.*	*Hrs. min.*
Reelers		$0.38	10 22	0 53
Throwers		.39	10 22	53
Weavers, hand		.41	[2]	[2]
Hosiery knitters	$0.72	.38	[2]	[2]
Cotton mills—				
Spinners		.44	[2]	[2]
Weavers		.39	[2]	[2]
Iron industry:				
Foundry men	1.01		[2]	[2]
Blacksmiths	1.02		[2]	[2]
Ceramics industry:				
Potters, clay	.90		9 46	58
Tile makers, clay	.71		[2]	[2]
Paper and printing industry:				
Japanese-paper makers	.73		10 24	55
Printers	.87		[2]	[2]
Flour-milling industry	.80		[2]	[2]
Sugar-refining industry	1.02		9 20	52
Canning industry	.82		[2]	[2]
Chemical industry:				
General chemical works	.93		9 54	56
Match works	.62	.29	[2]	[2]
Oil presses	.79		[2]	[2]
Mining industry:				
Mineral mines	.74	.37	9 16	55
Coal mines	.83	.65	10 18	1 1
Petroleum works	.78	.35	10 20	1 3
Others	.55	.18	10 0	55
Shipbuilding industry	1.28		9 28	48

[1] Does not include sums received as bonuses or retirement benefits, payments in kind, or housing accommodations.
[2] No data.

Approximate basic wages in logging and lumbering in Japan in the fall of 1931 are shown below. The rates shown do not include family allowances nor housing quarters furnished; no bonuses are paid in this industry.

Logging:	Per day [3]	Lumbering:	Per day [3]
Cutters	[4] $10.00	Sawyers	$0.90
Haulers (with horse)	2.00	Stackers	.80

Nagasaki District

BELOW are shown the current basic wages per day in shipbuilding in the Nagasaki district, as reported in the fall of 1931:

	Per day		Per day
Blacksmiths	$1.35	Riggers	$1.34
Boilermakers	1.29	Patternmakers	1.29
Carpenters, ship	1.40	Pipe fitters and plumbers	1.19
Caulkers	1.29	Riveters	1.19
Coppersmiths	1.19	Sheet-metal workers	1.19
Drillers	1.19	Ship fitters	1.40
Electricians	1.19	Welders, acetylene	1.24
Joiners	1.24	Welders, electric	1.24
Machinists	1.40		

[3] Conversions into United States currency on basis of yen=50 cents.
[4] Per 12,000 board feet.

Nagoya District

IN THE Nagoya district the basic wages of potters, as reported in the fall of 1931, ranged from 55½ cents to $1.41½ for a 10-hour day, the ordinary wage being 91 cents. For the same length of day the basic wage of painters in the pottery industry was from 59½ cents to $1.76, the usual wage being $1.16.

Basic wages in the textile industry in this district are presented in Table 2. Workers in this industry receive for overtime 12 per cent of their daily wage for each hour of overtime, except between 11 p. m. and 5 a. m., when the rate is 18 per cent of the daily wage per hour. Every six months a bonus is paid, ranging for beginners from $1.50 to $3 and for more experienced workers of long standing from $35 to $40; each firm has its own scale of bonuses. Most of the spinning companies provide free living quarters for their unmarried female operatives; a nominal amount is charged for food and is deducted monthly from the wages. Male married operatives receive, as a rule, 50 cents a month for each child under 12 years and for each dependent over 60 years. Houses are rented to them at minimum rates, and they have the privilege of buying food and other necessaries at the company stores at low prices. About 4 per cent is deducted from the daily wage to cover medical care and health insurance, the type of care and form of insurance varying from company to company. About 7½ cents per month is deducted as a club fee to cover recreation activities.

TABLE 2.—BASIC DAILY WAGES IN THE TEXTILE INDUSTRY IN THE NAGOYA DISTRICT OF JAPAN, 1931

[Conversions into United States currency on basis of yen = 50 cents]

Occupation	Hours per day	Basic daily rate		
		Ordinary	Highest	Lowest
		Cents	*Cents*	*Cents*
Reelers, silk, female	11	26.5	48.0	12.5
Throwers, silk, female	10	36.5	86.0	21.0
Spinners, cotton, female	10	43.0	71.0	30.0
Spinners, woolen, female	10	36.0	65.0	22.0
Spinners, cotton, machine, female	10	45.5	63.5	35.0
Spinners, woolen, machine, female	10	47.0	71.0	30.5
Weavers, silk, hand, female	10	22.5	30.0	15.0
Weavers, cotton, hand, female	10	22.5	30.0	15.0
Whippers, cotton, female	9	34.0	40.5	25.0
Knitters, male	10	64.0	95.0	29.5
Knitters, female	10	21.5	52.5	17.5

Taiwan (Formosa)

TABLE 3 gives the latest available data on wages in the various industries in Taiwan. The figures for manufacturing industries are average figures for the first half of 1930 in Taihoku, Keelung, Shinohiku, Taichu, Tainan, Kagi, Takao, Taito, Karenko, and Makao; those for mining are averages for the whole of Taiwan for 1929; those for forestry are averages for the Provinces and prefectures for the latter half of 1929; and those for agriculture are taken from various official records of 1929, and, where available, from records for the first half of 1930. It is stated that few, if any, changes in wage rates have been made since the periods given; the few cases in which such changes have been made have resulted in revision downward.

TABLE 3.—AVERAGE DAILY WAGES IN SPECIFIED INDUSTRIES IN TAIWAN (FORMOSA)

[Conversions into United States currency on basis of yen=50 cents]

Industry and occupation	Average daily wage				Hours per day
	Japanese workers		Formosan workers		
	Males	Females	Males	Females	
Manufacturing					
Textile industry:					
Jute spinners	$0.80		$0.50	$0.30	[1] 10
Cotton spinners, hand				.20	[2] 11
Silk weavers, hand				.22	[2] 11
Shirt knitters				.30	[2] 11
Cement works	1.15		.77		10
Glass works			.68		10
Chemical industry:					
Firecracker factories			.37	.20	10
Fireworks factories	1.25		.37	.20	10
Food industry:					
Sugar factories	1.10		.53		[3]
Pineapple canneries	.81		.48		[4] 10
Tea refiners			.50		[5] 10
Tea sorters				.12	[5] 10
Tea pickers				[6] .25	[5] 10
Mining, etc.					
Gold mines:					
Miners			.54		8
Timbermen			.62		8
Dressers			.36	.22	10
Metallurgical workers			.47	.22	10
Haulers			.56		10
Miscellaneous workers			.42		10
Auriferous copper mines:					
Miners	1.40		.88		8
Timbermen	1.76		1.13		8
Dressers	1.39	$0.36	1.19	.59	10
Metallurgical workers	1.34		.93		10
Haulers	1.78		1.30		10
Miscellaneous workers	1.01	.36	.84	.25	10
Coal mines:					
Miners	1.00		.65		[7]
Timbermen	.75		.67		[7]
Dressers			.29		[7]
Haulers	.97		.60		[7]
Miscellaneous workers	.80		.57		[7]
Oil wells:					
Drillers	1.45		.40		10
Refiners	1.25		.36		8
Engineers	1.40		.55		8
Miscellaneous workers	1.12	.38	.38	.26	10
Forestry					
Logging industry:					
Cutting	[8] 1.00 – [9] 1.89		[8] .55 – [9] 1.49		[10]
Clearing	[8] 1.30 – [9] 1.89		[8] .50 – [9] 1.49		[10]
Hauling	[8] 1.10 – [9] 1.89		[8] .60 – [9] 1.20		[10]
Floating			[8] .55 – [9] .90		[10]
Lumbering industry:					
Sawyers, hand	[8] 1.25 – [9] 1.99		[8] .55 – [9] 1.10		[10]
Sawyers, machine	1.20		[8] .35 – [9] .75		[10]
Agriculture					
Field hands	[8] .65 – [9] .72	.40	[8] .35 – [9] .47	[8] .20 – [9] .40	10
Rice-field hands	.65	.40	[8] .35 – [9] .75	[8] .27 – [9] .40	10

[1] 10 per cent extra for overtime.
[2] Including 1 hour for rest.
[3] Hours vary; extra pay for overtime.
[4] Average; hours vary according to locality and season.
[5] Average.
[6] Timework; for piecework, 0.9 cent to 1.2 cents per kin (1.3227 pounds) of tea.
[7] 10 hours, if 2 shifts; 8 hours, if 3 shifts.
[8] Minimum.
[9] Maximum.
[10] Hours vary according to locality; in government enterprises, 10 hours, including 1 hour for rest.

Jitsugetsutan hydroelectric project.—Bids were let for resumption of work on the Jitsugetsutan hydroelectric project and operations were expected to commence late in October, 1931.

The renewal of this enterprise, after a lapse in activity of nearly 10 years, is expected quickly to wipe out all unemployment in the island.

Unemployment has not been a serious problem in Taiwan. In September, 1930, there were approximately 5,000 unemployed, distributed as follows: Clerk and salaried classes, 1,000; unskilled laborers, 2,000; and skilled laborers, 2,000. By September, 1931, these figures had increased about 20 per cent.

Every effort is to be made by employers to continue wages in general throughout Taiwan at their present low level; but the current opinion is that when circumstances bring about the absence of all conditions of unemployment, labor will be in a position to demand a higher scale of pay, and that the demands when made will probably be successful.

Unskilled labor is not to be imported into Taiwan. The possibility of the need for imported labor with which to continue work on the project was seriously discussed before the development of the existing unsettled relations between Japan and China. At that time the question resolved itself into two definite angles: Chinese labor could be imported at lower wages than the prevailing scale in Taiwan; this would further the economic completion of the project, but would react adversely on the interests of the general public of Taiwan; or labor could be imported from Japan, necessarily at a wage scale higher than local standards; this might unbalance conditions from another angle. The conclusion which has now been reached is that no unskilled labor is to be imported, all labor requirements will be filled as completely as possible from the local mart, and only certain skilled labor, locally unobtainable, will be imported, and that will come from Japan.

TREND OF EMPLOYMENT

Summary for July, 1932

EMPLOYMENT decreased 3 per cent in July, 1932, as compared with June, 1932, and earnings decreased 6.1 per cent.

These figures are based on the pay rolls ending nearest the 15th of the month.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the earnings for one week, for both June and July, 1932, together with the per cents of change in July are shown in the following summary:

SUMMARY OF EMPLOYMENT AND EARNINGS, JUNE AND JULY, 1932

Industrial group	Establishments	Employment		Per cent of change	Earnings in 1 week		Per cent of change
		June, 1932	July, 1932		June, 1932	July, 1932	
Manufacturing	**17,873**	**2,573,793**	**2,474,141**	[1] **−4.0**	**$46,593,204**	**$42,855,560**	[1] **−7.9**
Coal mining	**1,269**	**220,909**	**204,733**	**−7.3**	**3,285,298**	**2,979,105**	**−9.3**
Anthracite	160	72,455	60,818	−16.1	1,488,103	1,372,668	−7.8
Bituminous	1,109	148,454	143,915	−3.1	1,797,195	1,606,437	−10.6
Metalliferous mining	**239**	**20,391**	**18,707**	**−8.3**	**395,016**	**332,499**	**−15.8**
Quarrying and nonmetallic mining	**593**	**21,010**	**20,995**	**−.1**	**340,427**	**329,766**	**−3.1**
Crude petroleum producing	**240**	**20,889**	**21,331**	**+2.1**	**656,850**	**654,396**	**−.4**
Public utilities	**11,980**	**636,221**	**629,406**	**−1.1**	**18,364,864**	**17,767,296**	**−3.3**
Telephone and telegraph	8,042	282,579	279,694	−1.0	7,814,155	7,580,549	−3.0
Power and light	3,446	222,428	219,930	−1.1	6,746,623	6,595,460	−2.2
Electric railroad and motor bus operation and maintenance	492	131,214	129,782	−1.1	3,804,086	3,591,287	−5.6
Trade	**15,985**	**401,063**	**380,699**	**−5.1**	**8,810,285**	**8,270,769**	**−6.1**
Wholesale	2,604	67,873	67,449	−.6	1,878,444	1,834,775	−2.3
Retail	13,381	333,190	313,250	−6.0	6,931,843	6,435,994	−7.2
Hotels	**2,489**	**135,845**	**136,645**	**+.6**	[2] **1,944,004**	[2] **1,882,018**	**−3.2**
Canning and preserving	**870**	**40,729**	**53,553**	**+31.5**	**518,410**	**607,477**	**+17.2**
Laundries	**983**	**61,153**	**60,601**	**−.9**	**1,011,334**	**976,930**	**−3.4**
Dyeing and cleaning	**375**	**12,728**	**12,325**	**−3.2**	**251,547**	**229,233**	**−8.9**
Building construction	**10,521**	**83,812**	**87,289**	**+4.1**	**2,984,786**	**2,256,432**	**+8.2**
Total	**63,417**	**4,228,543**	**4,100,425**	**−3.0**	**84,256,025**	**79,141,481**	**−6.1**

[1] Weighted per cent of change for the combined 89 manufacturing industries, repeated from Table 1, manufacturing industries; the remaining per cents of change, including total, are unweighted.

[2] The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

Data are not yet available concerning railroad employment for July, 1932. (See section "Class I steam railroads" for latest figures reported.)

Per capita weekly earnings in July, 1932, for each of the 16 industrial groups included in the bureau's monthly trend-of-employment survey, together with the per cents of change in July, 1932, as compared with June, 1932, and July, 1931, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

PER CAPITA WEEKLY EARNINGS IN JULY, 1932, IN 16 INDUSTRIAL GROUPS, AND COMPARISON WITH JUNE, 1932, AND JULY, 1931

Industrial group	Per capita weekly earnings in July, 1932	Per cent of change July, 1932, compared with—	
		June, 1932	July, 1931
Manufacturing	$17.32	−4.0	−22.0
Coal mining:			
Anthracite	22.57	+9.9	−6.1
Bituminous	11.16	−7.8	−37.0
Metalliferous mining	17.77	−8.3	−22.0
Quarrying and nonmetallic mining	15.71	−3.0	−27.1
Crude petroleum producing	30.68	−2.4	−11.2
Public utilities:			
Telephone and telegraph	27.10	−2.0	−6.6
Power and light	29.99	−1.1	−5.1
Electric-railroad and motor-bus operation and maintenance	27.67	−4.6	−11.2
Trade:			
Wholesale	27.20	−1.7	−12.0
Retail	20.55	−1.2	−14.5
Hotels (cash payments only) [1]	13.77	−3.8	−13.7
Canning and preserving	11.34	−10.9	−10.3
Laundries	16.12	−2.5	−13.2
Dyeing and cleaning	18.60	−5.9	−16.7
Building construction	25.85	+3.9	[2]
Total	[3] 19.16	[3] −3.4	[3] −16.8

[1] The additional value of board, room, and tips can not be computed.
[2] Data not available.
[3] Does not include building construction.

Employment in Selected Manufacturing Industries in July, 1932

Comparison of Employment and Earnings in July, 1932, with June, 1932, and July, 1931

EMPLOYMENT in manufacturing industries decreased 4 per cent in July, 1932, as compared with June, 1932, and earnings decreased 7.9 per cent over the month interval. Comparing July, 1932, with July, 1931, decreases of 23 per cent in employment and 40 per cent in earnings are shown over the 12-month period.

The per cents of change in employment and earnings in July, 1932, as compared with June, 1932, are based on returns made by 17,873 establishments in 89 of the principal manufacturing industries in the United States, having in July 2,474,141 employees whose earnings in one week were $42,855,560.

The index of employment in July, 1932, was 55.2 as compared with 57.5 in June, 1932, 59.7 in May, 1932, and 71.7 in July, 1931; the pay-roll index in July, 1932, was 36.2 as compared with 39.3 in June, 1932, 42.5 in May, 1932, and 60.3 in July, 1931. The 12-month average for 1926 equals 100.

In Table 1, which follows, are shown the number of identical establishments reporting in both June and July, 1932, in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest July 15, and the amount of their weekly earnings in July, the per cents of change over the month and year intervals, and the index numbers of employment and earnings in July, 1932.

The monthly per cents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly earnings reported in identical

establishments for the two months considered. The per cents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The per cents of change over the year interval in the separate industries, in the groups, and in the totals are computed from the index numbers of employment and earnings.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1932, AND JULY, 1931

Industry	Establishments reporting in both June and July, 1932	Employment			Earnings			Index numbers, July, 1932 (average 1926=100)	
		Number on pay roll, July, 1932	Per cent of change		Amount of pay roll (1 week), July, 1932	Per cent of change			
			June to July, 1932	July, 1931, to July, 1932		June to July, 1932	July, 1931, to July, 1932	Employment	Pay-roll totals
Food and kindred products	**3,013**	**226,599**	**−1.9**	**−10.1**	**$4,935,156**	**−4.4**	**−22.6**	**79.4**	**66.8**
Slaughtering and meat packing	227	81,257	−1.2	−4.4	1,727,526	−5.0	−21.9	85.2	69.9
Confectionery	326	24,885	−10.0	−15.2	345,507	−15.5	−27.8	58.7	43.2
Ice cream	381	13,660	−1.6	−11.7	374,681	−2.7	−23.9	83.4	69.0
Flour	427	15,817	+0.6	−8.1	344,717	+0.8	−20.6	83.2	68.8
Baking	935	62,518	−1.0	−11.8	1,414,772	−3.6	−22.5	81.6	68.8
Sugar refining, cane	15	8,052	+1.5	−10.0	214,579	+4.1	−20.0	75.8	69.4
Beet sugar	46	2,966	+2.6	+2.5	69,167	−7.2	−20.4	40.8	33.1
Beverages	341	11,151	−2.8	−18.2	303,108	−6.4	−26.9	79.8	70.0
Butter	315	6,293	+1.2	−10.0	141,099	−2.0	−18.0	104.7	87.2
Textiles and their products	**3,069**	**473,412**	**−5.6**	**−27.7**	**5,479,685**	**−8.8**	**−50.2**	**55.3**	**32.1**
Cotton goods	684	168,757	−3.3	−27.2	1,578,805	−6.5	−50.0	55.5	32.9
Hosiery and knit goods	452	86,734	−9.6	−15.5	973,434	−17.7	−37.3	67.5	40.4
Silk goods	255	30,187	+0.6	−34.9	374,175	+3.3	−53.6	41.4	25.8
Woolen and worsted goods	260	44,784	+15.5	−32.9	670,975	+18.0	−51.1	56.9	38.4
Carpets and rugs	32	9,062	−14.5	−41.0	131,327	−11.2	−61.4	44.4	23.3
Dyeing and finishing textiles	149	27,524	−10.4	−22.5	412,003	−23.7	−48.7	64.1	37.8
Clothing, men's	357	48,224	+0.9	−26.1	543,464	+0.4	−58.1	56.4	26.0
Shirts and collars	105	12,183	−6.7	−28.2	121,256	−10.5	−48.7	51.3	30.5
Clothing, women's	385	17,289	−30.0	−38.7	273,614	−30.0	−55.2	45.4	25.6
Millinery	136	6,258	−15.5	−30.6	93,629	−19.0	−44.6	47.1	28.5
Corsets and allied garments	32	5,165	−8.2	−8.5	68,323	−11.7	−25.6	90.9	63.2
Cotton small wares	112	8,230	−3.2	−23.4	113,117	−6.6	−43.8	69.3	44.8
Hats, fur felt	38	4,839	+5.4	−29.2	80,453	+17.5	−46.0	59.4	32.6
Men's furnishings	72	4,176	−18.0	−32.2	45,110	−20.4	−53.4	46.6	28.4
Iron and steel and their products, not including machinery	**1,383**	**284,549**	**−6.0**	**−25.9**	**3,721,805**	**−14.1**	**−54.1**	**51.6**	**23.1**
Iron and steel	212	169,618	−5.7	−25.8	1,953,993	−15.4	−59.2	51.7	19.7
Cast-iron pipe	38	5,907	+2.3	−44.7	76,790	−2.3	−64.8	32.1	17.1
Structural and ornamental ironwork	180	15,734	−5.3	−37.1	266,626	−7.5	−59.0	45.2	25.0
Hardware	107	19,581	−9.1	−26.1	234,925	−19.8	−51.2	47.6	21.6
Steam fittings and steam and hot-water heating apparatus	111	15,410	−3.5	−38.9	261,258	−9.6	−51.9	32.5	18.5
Stoves	160	12,959	−12.0	−25.7	205,792	−13.6	−44.9	40.7	21.7
Bolts, nuts, washers, and rivets	64	8,037	−2.4	−19.7	111,351	−11.2	−45.9	62.6	31.7
Cutlery (not including silver and plated cutlery) and edge tools	127	8,625	−9.8	−14.7	152,990	−12.9	−32.3	62.2	40.4
Forgings, iron and steel	61	5,370	−5.9	−14.0	89,484	−2.8	−35.9	54.8	30.2
Plumbers' supplies	63	4,438	−3.5	−20.5	60,454	−17.1	−51.3	61.4	30.9
Tin cans and other tinware	58	8,570	−2.1	−13.4	160,967	−7.1	−24.6	75.1	43.5
Tools (not including edge tools, machine tools, files, or saws)	132	5,349	−9.3	−31.3	71,926	−22.5	−52.5	59.2	29.1
Wirework	70	4,951	−6.8	−10.7	75,249	−18.9	−38.8	87.3	53.4

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1932, AND JULY, 1931—Continued

Industry	Establishments reporting in both June and July, 1932	Employment			Earnings			Index numbers, July, 1932 (average 1926=100)	
		Number on pay roll, July, 1932	Per cent of change		Amount of pay roll (1 week), July, 1932	Per cent of change			
			June to July, 1932	July, 1931, to July, 1932		June to July, 1932	July, 1931, to July, 1932	Employment	Pay-roll totals
Lumber and allied products	**1,557**	**111,125**	**−3.7**	**−30.3**	**$1,351,332**	**−8.6**	**−53.9**	**36.4**	**19.1**
Lumber, sawmills	605	54,792	−3.1	−29.6	629,480	−8.1	−54.0	34.7	17.8
Lumber, millwork	450	16,431	−4.7	−34.5	247,401	−6.9	−53.4	34.8	20.8
Furniture	483	38,883	−5.3	−30.4	459,873	−13.1	−56.0	40.7	19.2
Turpentine and rosin	19	1,019	+1.6	−20.5	14,578	+7.5	−32.9	44.7	39.1
Leather and its manufactures	**498**	**121,490**	**+1.6**	**−15.3**	**1,820,571**	**+3.0**	**−36.3**	**70.8**	**44.7**
Leather	165	22,078	−0.5	−20.3	392,789	−1.4	−38.1	63.1	45.9
Boots and shoes	333	99,412	+1.9	−14.2	1,427,782	+4.4	−35.8	72.7	44.3
Paper and printing	**1,910**	**211,450**	**−1.9**	**−12.4**	**5,249,917**	**−5.2**	**−26.0**	**78.4**	**64.2**
Paper and pulp	401	74,673	−1.4	−11.0	1,266,611	−7.9	−32.6	72.2	45.9
Paper boxes	312	19,105	−3.8	−17.0	322,999	−8.6	−31.3	66.5	52.8
Printing, book and job	750	51,630	−1.6	−16.1	1,373,279	−4.6	−29.7	73.9	59.9
Printing, newspapers and periodicals	447	66,042	−1.7	−8.1	2,287,028	−3.7	−18.8	96.0	85.1
Chemicals and allied products	**1,007**	**127,327**	**−1.9**	**−18.1**	**2,939,837**	**−6.5**	**−30.2**	**68.0**	**56.5**
Chemicals	114	19,787	−1.8	−13.8	465,900	−4.8	−28.2	82.1	58.6
Fertilizers	203	4,268	−6.4	−26.4	62,380	−4.4	−41.0	30.4	24.0
Petroleum refining	114	47,152	−0.9	−13.0	1,324,874	−4.4	−23.0	64.1	56.8
Cottonseed, oil, cake, and meal	51	1,575	+18.2	+8.1	19,295	+7.2	−1.7	28.1	28.3
Druggists' preparations	39	6,844	−6.3	−17.0	136,880	−9.1	−26.1	66.1	64.2
Explosives	21	2,550	−6.5	−32.2	48,257	−5.9	−47.0	66.6	42.8
Paints and varnishes	352	14,887	−4.6	−14.8	313,188	−14.1	−32.2	68.9	53.0
Rayon	22	18,035	−0.5	−40.6	281,694	−9.0	−54.6	92.9	71.2
Soap	91	12,229	−2.7	−7.4	287,369	−8.7	−14.8	93.1	82.6
Stone, clay, and glass products	**1,309**	**81,650**	**−3.9**	**−34.7**	**1,303,374**	**−8.1**	**−52.0**	**41.8**	**24.8**
Cement	123	13,768	−2.2	−37.1	245,068	−9.3	−57.2	40.6	24.1
Brick, tile, and terra cotta	657	19,098	−1.4	−42.2	230,965	−5.1	−62.1	29.4	13.1
Pottery	121	11,755	−16.9	−32.6	155,223	−23.0	−50.3	48.3	24.3
Glass	188	31,604	−5.7	−21.1	553,515	−14.4	−38.7	54.5	37.6
Marble, granite, slate, and other stone products	220	5,425	+12.7	−42.5	118,603	+18.8	−55.3	47.5	32.3
Nonferrous metals and their products	**619**	**69,654**	**−8.9**	**−27.3**	**1,127,109**	**−13.1**	**−44.0**	**48.9**	**29.9**
Stamped and enameled ware	92	12,183	−8.3	−19.9	185,454	−16.6	−39.2	56.7	33.8
Brass, bronze, and copper products	199	25,925	−4.1	−24.9	416,041	−6.8	−45.2	49.8	28.6
Aluminum manufactures	26	4,608	−4.8	−41.5	60,825	−8.9	−64.0	44.4	21.8
Clocks, time-recording devices, and clock movements	22	3,046	−28.0	−47.3	40,680	−27.4	−59.4	30.6	19.0
Gas and electric fixtures, lamps, lanterns, and reflectors	52	3,416	−29.5	−45.1	70,780	−32.4	−55.3	48.3	34.2
Plated ware	51	6,242	−12.1	−24.4	112,117	−12.5	−37.9	53.3	31.8
Smelting and refining—copper, lead, and zinc	26	7,645	−4.1	−16.3	126,474	−8.3	−29.0	58.0	36.7
Jewelry	151	6,589	−13.4	−36.5	114,738	−14.7	−42.2	31.0	19.6
Tobacco manufactures	**251**	**54,694**	**−1.1**	**−13.5**	**719,934**	**−1.6**	**−23.5**	**70.3**	**54.6**
Chewing and smoking tobacco and snuff	36	9,962	−1.9	+8.7	132,331	−4.7	−9.0	87.7	69.9
Cigars and cigarettes	215	44,732	−0.9	−16.3	587,603	−0.9	−25.4	68.1	52.8
Transportation equipment	**414**	**274,455**	**−3.7**	**−15.9**	**5,955,898**	**−7.2**	**−20.2**	**56.8**	**41.4**
Automobiles	244	233,006	−2.9	−14.0	4,949,517	−7.6	−18.3	59.2	42.3
Aircraft	34	6,055	−8.2	−34.2	185,221	−10.5	−35.5	180.5	181.3
Cars, electric and steam railroad	33	4,576	+3.5	−25.7	77,105	+0.7	−30.5	19.7	11.4
Locomotives	11	2,506	−7.7	−42.4	54,533	−15.3	−53.6	16.6	12.1
Shipbuilding	92	28,312	−9.2	−19.6	689,522	−3.8	−24.2	76.2	63.7

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1932, AND JULY, 1931—Continued

Industry	Establishments reporting in both June and July, 1932	Employment			Earnings			Index numbers, July, 1932 (average 1926=100)	
		Number on pay roll, July, 1932	Per cent of change		Amount of pay roll (1 week), July, 1932	Per cent of change			
			June to July, 1932	July, 1931, to July, 1932		June to July, 1932	July, 1931, to July, 1932	Employment	Pay-roll totals
Rubber products	**144**	**59,564**	**−3.1**	**−12.3**	**$1,167,642**	**−14.3**	**−28.9**	**65.5**	**43.8**
Rubber tires and inner tubes	38	36,517	−1.3	−8.6	811,804	−16.3	−25.1	65.0	45.1
Rubber boots and shoes	10	9,650	−9.4	−24.5	129,992	−18.4	−43.6	50.6	28.8
Rubber goods, other than boots, shoes, tires, and inner tubes	96	13,397	−3.8	−12.9	225,846	−6.3	−30.9	77.5	50.1
Machinery, not including transportation equipment	**1,782**	**286,799**	**−5.6**	**−31.2**	**5,086,003**	**−10.5**	**−49.1**	**47.3**	**27.4**
Agricultural implements	74	4,360	−10.3	−43.7	66,314	−14.3	−49.3	19.8	14.0
Electrical machinery, apparatus, and supplies	281	115,563	−7.0	−30.4	2,252,699	−9.6	−46.3	55.5	37.0
Engines, turbines, tractors, and water wheels	74	12,820	−7.4	−35.7	231,536	−13.4	−50.9	41.7	23.9
Cash registers, adding machines, and calculating machines	44	14,774	−1.0	−8.6	317,607	−1.0	−25.5	70.4	47.0
Foundry and machine-shop products	1,074	102,616	−3.3	−29.9	1,597,080	−10.7	−50.3	45.3	23.3
Machine tools	149	10,399	−11.0	−49.8	182,127	−12.2	−63.7	30.7	17.8
Textile machinery and parts	28	4,314	−20.3	−38.5	62,462	−21.3	−61.8	41.5	21.6
Typewriters and supplies	16	5,771	−3.0	−27.1	76,073	−8.6	−50.4	57.2	28.9
Radio	42	16,182	−2.2	−31.0	300,105	−11.5	−43.4	62.5	47.8
Railroad repair shops	**917**	**91,373**	**−2.5**	**−21.9**	**1,997,297**	**−10.7**	**−39.6**	**47.1**	**34.2**
Electric railroad	395	21,035	−1.8	−11.4	552,483	−6.2	−22.0	68.2	57.1
Steam railroad	522	70,338	−2.6	−22.9	1,444,814	−11.2	−41.4	45.5	32.4
Total, 89 industries	**17,873**	**2,474,141**	**−4.0**	**−23.0**	**42,855,560**	**−7.9**	**−40.0**	**55.2**	**36.2**

Per Capita Earnings in Manufacturing Industries

ACTUAL per capita weekly earnings in July, 1932, for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics, together with the per cent of change in July, 1932, as compared with June, 1932, and July, 1931, are shown in Table 2.

These earnings must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN JULY, 1932, AND COMPARISON WITH JUNE, 1932, AND JULY, 1931

Industry	Per capita weekly earnings in July, 1932	Per cent of change compared with—	
		June, 1932	July, 1931
Food and kindred products:			
Slaughtering and meat packing	$21.26	−3.8	−18.2
Confectionery	13.88	−6.2	−14.9
Ice cream	27.43	−1.2	−14.0
Flour	21.79	+.2	−13.5
Baking	22.63	−2.6	−11.9
Sugar refining, cane	26.65	+2.5	−11.1
Beet sugar	23.32	−9.5	−22.2
Beverages	27.18	−3.8	−11.0
Butter	22.42	−3.2	−8.8
Textiles and their products:			
Cotton goods	9.36	−3.3	−31.5
Hosiery and knit goods	11.22	−8.9	−25.9
Silk goods	12.40	+2.8	−29.0
Woolen and worsted goods	14.98	+2.2	−27.1
Carpets and rugs	14.49	+3.9	−34.8
Dyeing and finishing textiles	14.97	−14.8	−33.7
Clothing, men's	11.27	−.4	−43.2
Shirts and collars	9.95	−4.1	−28.1
Clothing, women's	15.83	+.1	−27.1
Millinery	14.96	−4.2	−19.9
Corsets and allied garments	13.23	−3.8	−18.7
Cotton, small wares	13.74	−3.6	−26.8
Hats, fur felt	16.63	+11.5	−23.7
Men's furnishings	10.80	−3.0	−31.5
Iron and steel and their products, not including machinery:			
Iron and steel	11.52	−10.4	−45.3
Cast-iron pipe	13.00	−4.5	−36.3
Structural and ornamental ironwork	16.95	−2.3	−34.7
Hardware	12.00	−11.7	−34.2
Steam fittings and steam and hot-water heating apparatus	16.95	−6.4	−21.2
Stoves	15.88	−1.8	−26.2
Bolts, nuts, washers, and rivets	13.85	−9.1	−32.6
Cutlery (not including silver and plated cutlery) and edge tools	17.74	−3.4	−20.5
Forgings, iron and steel	16.66	+3.3	−25.5
Plumbers' supplies	13.62	−14.1	−38.8
Tin cans and other tinware	18.78	−5.2	−12.9
Tools (not including edge tools, machine tools, files, or saws)	13.45	−14.5	−30.8
Wirework	15.20	−13.0	−31.4
Lumber and allied products:			
Lumber, sawmills	11.49	−5.2	−34.6
Lumber, millwork	15.06	−2.3	−29.0
Furniture	11.83	−8.2	−36.5
Turpentine and rosin	14.31	+5.8	−15.4
Leather and its manufactures:			
Leather	17.79	−.9	−22.5
Boots and shoes	14.36	+2.4	−25.2
Paper and printing:			
Paper and pulp	16.96	−6.5	−24.1
Paper boxes	16.91	−4.9	−17.2
Printing, book and job	26.60	−3.1	−16.3
Printing, newspapers and periodicals	34.63	−2.0	−11.6
Chemicals and allied products:			
Chemicals	23.55	−3.0	−16.7
Fertilizers	14.62	+2.1	−20.2
Petroleum refining	28.10	−3.5	−11.5
Cottonseed oil, cake, and meal	12.25	−9.3	−9.2
Druggists' preparations	20.00	−3.1	−11.2
Explosives	18.92	+.6	−21.8
Paints and varnishes	21.04	−10.0	−20.8
Rayon	15.62	−8.5	−23.6
Soap	23.50	−6.2	−8.3
Stone, clay, and glass products:			
Cement	17.80	−7.3	−31.8
Brick, tile, and terra cotta	12.09	−3.7	−34.2
Pottery	13.20	−7.4	−25.9
Glass	17.51	−9.3	−22.6
Marble, granite, slate, and other stone products	21.86	+5.3	−22.7
Nonferrous metals and their products:			
Stamped and enameled ware	15.22	−9.1	−24.0
Brass, bronze, and copper products	16.05	−2.8	−27.0
Aluminum manufactures	13.20	−4.3	−38.6
Clocks, time-recording devices, and clock movements	13.36	+.9	−22.8
Gas and electric fixtures, lamps, lanterns, and reflectors	20.72	−4.1	−18.3
Plated ware	17.96	−.4	−17.8
Smelting and refining—copper, lead, and zinc	16.54	−4.3	−15.1
Jewelry	17.41	−1.6	−6.5
Tobacco manufactures:			
Chewing and smoking tobacco and snuff	13.28	−2.9	−16.1
Cigars and cigarettes	13.14	(1)	−11.1

[1] No change.

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN JULY, 1932, AND COMPARISON WITH JUNE, 1932, AND JULY, 1931—Continued

Industry	Per capita weekly earnings in July, 1932	Per cent of change compared with—	
		June, 1932	July, 1931
Transportation equipment:			
Automobiles	$21.24	−4.8	−5.2
Aircraft	30.59	−2.5	−1.8
Cars, electric and steam railroad	16.85	−2.7	−6.5
Locomotives	21.76	−8.3	−19.6
Shipbuilding	24.35	+5.9	−6.0
Rubber products:			
Rubber tires and inner tubes	22.23	−15.2	−18.2
Rubber boots and shoes	13.47	−10.0	−25.6
Rubber goods, other than boots, shoes, tires, and inner tubes	16.86	−2.5	−20.6
Machinery, not including transportation equipment:			
Agricultural implements	15.21	−4.5	−9.4
Electrical machinery, apparatus, and supplies	19.49	−2.7	−22.5
Engines, turbines, tractors, and water wheels	18.06	−6.5	−5.8
Cash registers, adding machines, and calculating machines	21.50	[1]	−18.7
Foundry and machine-shop products	15.56	−7.7	−28.9
Machine tools	17.51	−1.4	−27.6
Textile machinery and parts	14.48	−1.2	−27.8
Typewriters and supplies	13.18	−5.8	−32.0
Radio	18.55	−9.5	−18.0
Railroad repair shops:			
Electric-railroad repair shops	26.26	−4.5	−11.9
Steam-railroad repair shops	20.54	−8.8	−24.0

[1] No change.

General Index Numbers of Employment and Earnings in Manufacturing Industries

GENERAL index numbers of employment and earnings in manufacturing industries by months, from January, 1926, to July, 1932, together with average indexes for each of the years from 1926 to 1931, and for the 7-month period, January to July, 1932, inclusive, are shown in the following table. In computing these general indexes, the index numbers of each of the separate industries are weighted according to their relative importance in the total. Following this table are two charts prepared from these general indexes showing the course of employment and earnings for each of the years 1926 to 1931, inclusive, and for the months from January to July, 1932.

TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND EARNINGS IN **MANUFACTURING** INDUSTRIES, JANUARY, 1926, TO JULY, 1932

[12-month average, 1926=100]

Month	Employment							Earnings						
	1926	1927	1928	1929	1930	1931	1932	1926	1927	1928	1929	1930	1931	1932
January	100.4	97.3	91.6	95.2	90.7	74.6	64.8	98.0	94.9	89.6	95.5	88.1	63.7	48.6
February	101.5	99.0	93.0	97.4	90.9	75.3	65.6	102.2	100.6	93.9	101.8	91.3	68.1	49.6
March	102.0	99.5	93.7	98.6	90.5	75.9	64.5	103.4	102.0	95.2	103.9	91.6	69.6	48.2
April	101.0	98.6	93.3	99.1	89.9	75.7	62.2	101.5	100.8	93.8	104.6	90.7	68.5	44.7
May	99.8	97.6	93.0	99.2	88.6	75.2	59.7	99.8	99.8	94.1	104.8	88.6	67.7	42.5
June	99.3	97.0	93.1	98.8	86.5	73.4	57.5	99.7	97.4	94.2	102.8	85.2	63.8	39.3
July	97.7	95.0	92.2	98.2	82.7	71.7	55.2	95.2	93.0	91.2	98.2	77.0	60.3	36.2
August	98.7	95.1	93.6	98.6	81.0	71.2	-----	98.7	95.0	94.2	102.1	75.0	59.7	-----
September	100.3	95.8	95.0	99.3	80.9	70.9	-----	99.3	94.1	95.4	102.6	75.4	56.7	-----
October	100.7	95.3	95.9	98.4	79.9	68.9	-----	102.9	95.2	99.0	102.4	74.0	55.3	-----
November	99.5	93.5	95.4	95.0	77.9	67.1	-----	99.6	91.6	96.1	95.4	69.6	52.5	-----
December	98.9	92.6	95.5	92.3	76.6	66.7	-----	99.8	93.2	97.7	92.4	68.8	52.2	-----
Average	**100.0**	**96.4**	**93.8**	**97.5**	**84.7**	**72.2**	[1] **61.4**	**100.0**	**96.5**	**94.5**	**100.5**	**81.3**	**61.5**	[1] **44.2**

[1] Average for 7 months.

Time Worked in Manufacturing Industries in July, 1932

REPORTS as to working time in July were received from 13,340 establishments in 89 manufacturing industries. Six per cent of these establishments were idle, 38 per cent operated on a full-time basis, and 56 per cent worked on a part-time schedule.

An average of 82 per cent of full-time operation in July was shown by reports received from all the operating establishments included in Table 4. The establishments working part time in July averaged 70 per cent of full-time operation.

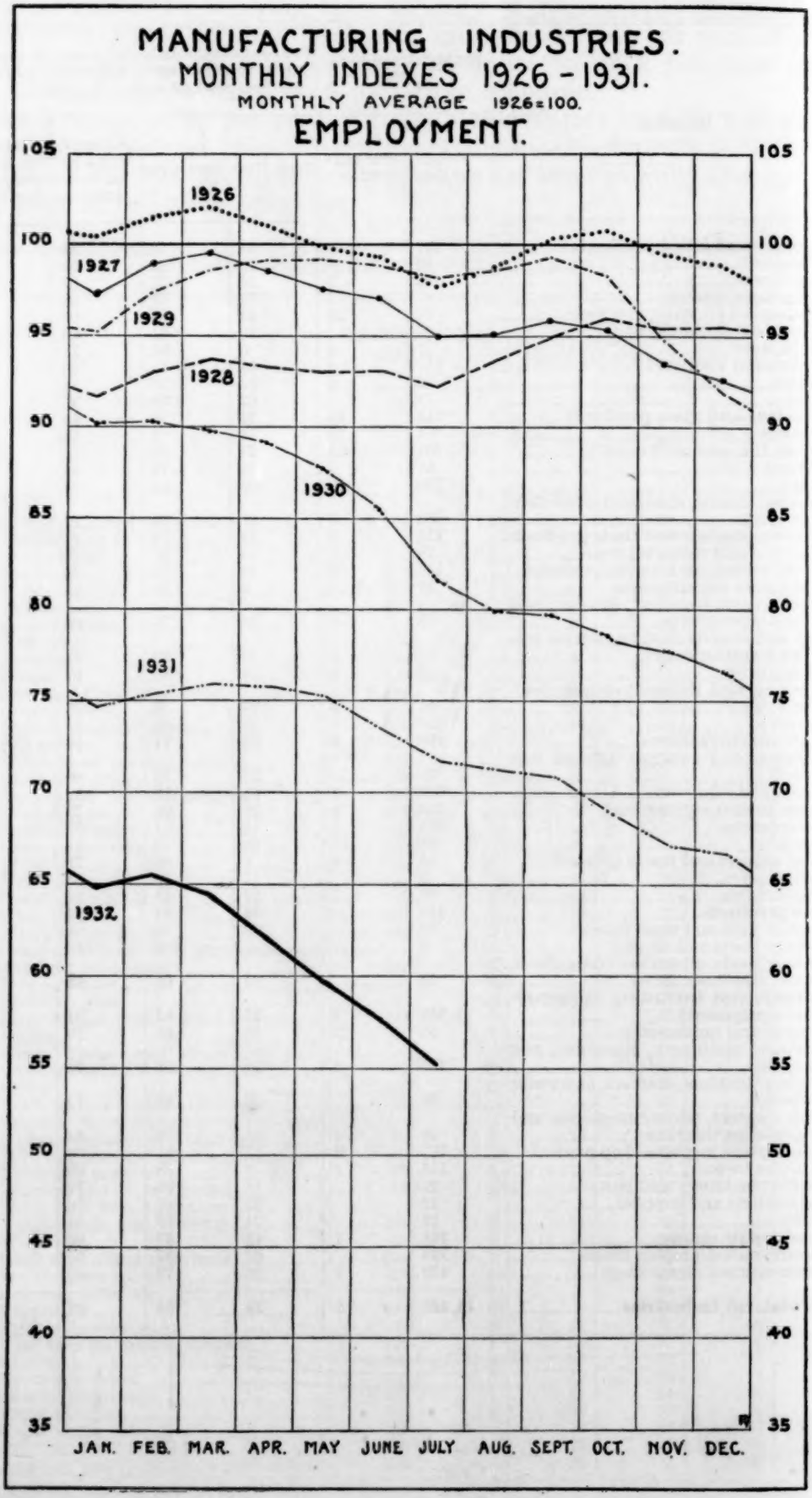
TABLE 4.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY, 1932

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	**2,354**	**1**	**74**	**26**	**94**	**77**
Slaughtering and meat packing	178	1	72	27	97	87
Confectionery	236	3	28	69	79	70
Ice cream	316	----	75	25	96	85
Flour	383	1	68	32	92	74
Baking	652	(1)	85	15	97	78
Sugar refining, cane	12	17	25	58	84	75
Beet sugar	35	----	94	6	99	85
Beverages	296	(1)	83	17	96	78
Butter	246	----	85	15	98	85
Textiles and their products	**2,404**	**16**	**36**	**49**	**84**	**72**
Cotton goods	635	13	27	60	76	66
Hosiery and knit goods	377	7	49	45	87	73
Silk goods	233	27	37	36	85	69
Woolen and worsted goods	232	16	47	38	89	76
Carpets and rugs	28	29	11	61	75	70
Dyeing and finishing textiles	132	4	31	65	81	72
Clothing, men's	215	15	40	45	91	82
Shirts and collars	65	14	38	48	89	81
Clothing, women's	192	47	33	20	92	78
Millinery	92	22	30	48	85	75
Corsets and allied garments	24	----	46	54	88	77
Cotton, small wares	98	1	28	71	83	76
Hats, fur felt	23	4	30	65	77	66
Men's furnishings	58	7	31	62	81	72
Iron and steel and their products, not including machinery	**981**	**5**	**12**	**83**	**67**	**62**
Iron and steel	151	8	5	87	57	55
Cast-iron pipe	34	15	6	79	53	49
Structural and ornamental ironwork	123	2	10	88	73	70
Hardware	54	7	----	93	62	62
Steam fittings and steam and hot-water heating apparatus	89	8	3	89	58	57
Stoves	102	6	9	85	64	60
Bolts, nuts, washers, and rivets	51	----	8	92	66	63
Cutlery (not including silver and plated cutlery) and edge tools	96	2	25	73	73	64
Forgings, iron and steel	30	----	17	83	66	59
Plumbers' supplies	49	4	12	84	70	66
Tin cans and other tinware	48	4	40	56	87	78
Tools (not including edge tools, machine tools, files, or saws)	104	3	17	80	68	62
Wirework	50	2	16	82	75	71
Lumber and allied products	**1,064**	**7**	**18**	**75**	**71**	**64**
Lumber, sawmills	434	8	13	79	68	62
Lumber, millwork	285	5	17	78	73	67
Furniture	328	8	25	67	74	64
Turpentine and rosin	17	6	41	53	90	81
Leather and its manufactures	**362**	**4**	**25**	**71**	**80**	**73**
Leather	127	2	35	62	85	76
Boots and shoes	235	5	19	76	77	71
Paper and printing	**1,523**	**1**	**35**	**64**	**84**	**75**
Paper and pulp	322	3	24	73	76	68
Paper boxes	251	(1)	12	87	75	71
Printing, book and job	588	----	23	77	83	78
Printing, newspapers and periodicals	362	----	82	18	98	90

[1] Less than one-half of 1 per cent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY, 1932—Continued

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Chemicals and allied products	**777**	**4**	**58**	**37**	**92**	**79**
Chemicals	83	5	73	22	96	83
Fertilizers	152	5	58	37	92	81
Petroleum refining	63	5	78	17	98	86
Cottonseed oil, cake, and meal	40	25	43	33	92	82
Druggists' preparations	23	----------	39	61	90	84
Explosives	17	6	6	88	73	71
Paints and varnishes	316	2	57	41	90	77
Rayon	12	8	42	50	89	80
Soap	71	----------	62	38	95	86
Stone, clay, and glass products	**755**	**14**	**36**	**50**	**80**	**65**
Cement	74	15	74	11	96	69
Brick, tile, and terra cotta	281	19	23	58	74	63
Pottery	87	8	14	78	66	60
Glass	130	12	69	18	94	71
Marble, granite, slate, and other stone products	183	9	27	64	79	70
Nonferrous metals and their products	**473**	**3**	**19**	**78**	**73**	**66**
Stamped and enameled ware	78	3	10	87	73	70
Brass, bronze, and copper products	136	2	16	82	74	68
Aluminum manufactures	16	----------	6	94	73	72
Clocks, time-recording devices, and clock movements	19	5	16	79	66	59
Gas and electric fixtures, lamps, lanterns, and reflectors	39	3	15	82	73	68
Plated ware	42	2	14	83	69	63
Smelting and refining—copper, lead, and zinc	16	6	38	56	83	72
Jewelery	127	5	29	66	74	62
Tobacco manufactures	**198**	**6**	**23**	**71**	**80**	**74**
Chewing and smoking tobacco and snuff	29	----------	24	76	80	74
Cigars and cigarettes	169	7	22	70	80	73
Transportation equipment	**295**	**6**	**28**	**66**	**79**	**69**
Automobiles	161	5	14	81	70	65
Aircraft	31	13	68	19	97	86
Cars, electric and steam railroad	25	8	4	88	72	71
Locomotives	9	----------	11	89	81	79
Shipbuilding	69	7	52	41	92	83
Rubber products	**118**	----------	**36**	**64**	**83**	**73**
Rubber tires and inner tubes	30	----------	50	50	88	75
Rubber boots and shoes	9	----------	----------	100	79	79
Rubber goods, other than boots, shoes, tires, and inner tubes	79	----------	34	66	82	72
Machinery, not including transportation equipment	**1,268**	**3**	**17**	**81**	**71**	**65**
Agricultural implements	58	7	28	66	79	70
Electrical machinery, apparatus, and supplies	182	1	14	85	75	70
Engines, turbines, tractors, and water wheels	59	----------	12	88	72	69
Cash registers, adding machines, and calculating machines	38	5	45	50	83	68
Foundry and machine-shop products	757	2	17	81	68	61
Machine tools	115	5	7	88	69	66
Textile machinery and parts	22	----------	14	86	72	68
Typewriters and supplies	12	----------	33	67	76	64
Radio	25	----------	24	76	84	79
Railroad repair shops	**768**	**1**	**43**	**57**	**90**	**82**
Electric-railroad repair shops	349	----------	63	37	95	86
Steam-railroad repair shops	419	1	26	73	85	80
Total, 89 industries	**13,340**	**6**	**38**	**56**	**82**	**70**


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926 - 1931.
MONTHLY AVERAGE 1926=100.
EMPLOYMENT.
105
100
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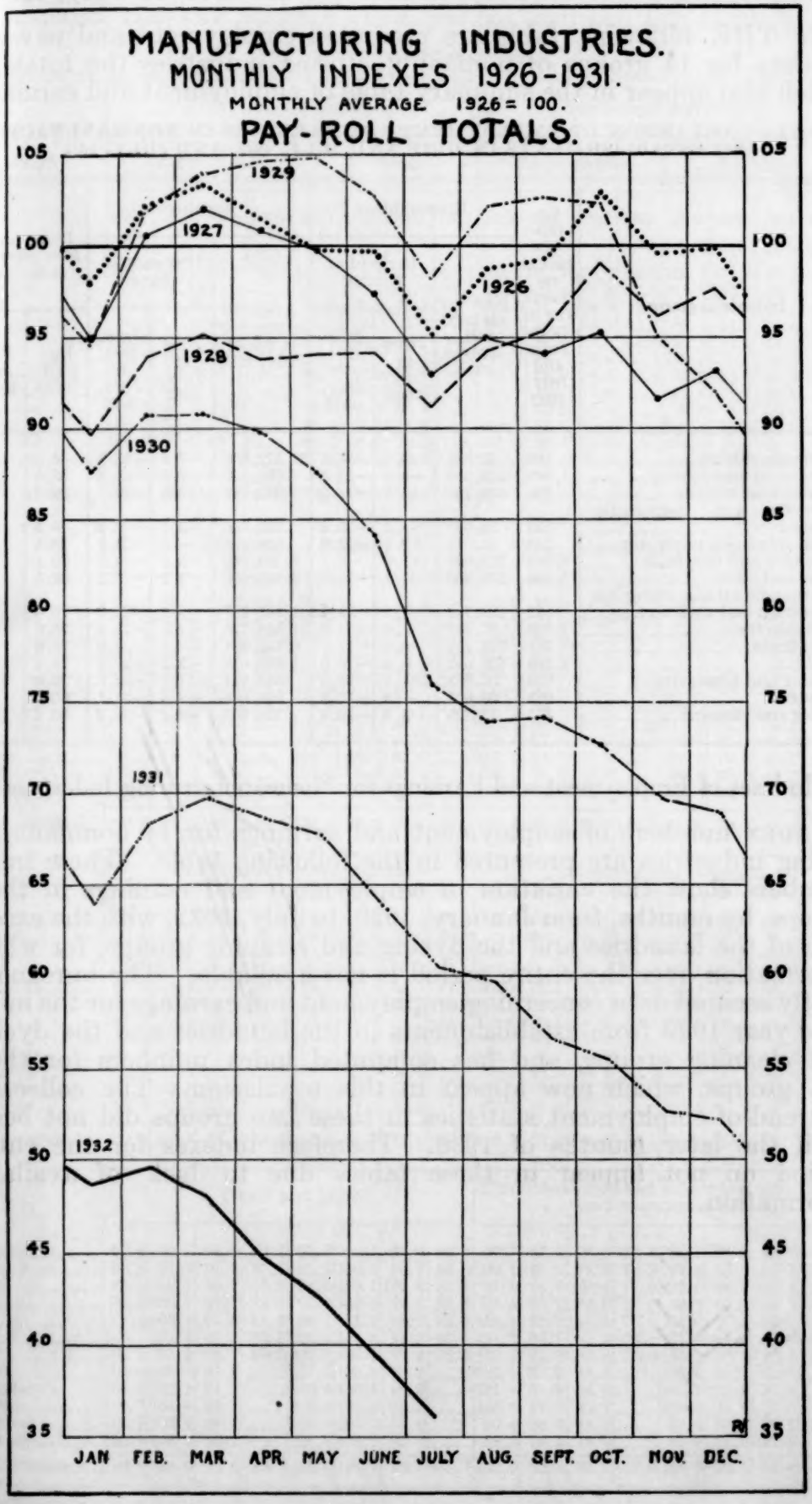
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926-1931.
MONTHLY AVERAGE 1926 = 100.
PAY-ROLL TOTALS.
105
100
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FEB.
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JUNE
JULY
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OCT.
NOV.
DEC.

Employment in Nonmanufacturing Industries in July, 1932

IN THE following table are presented employment and pay-roll data for 14 groups of nonmanufacturing industries the totals of which also appear in the summary table of employment and earnings.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN NONMANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1932, AND JULY, 1931

Industrial group	Establishments reporting in both June and July, 1932	Employment			Earnings			Index numbers (average 1929=100)	
		Number on pay roll, July, 1932	Per cent of change		Amount of pay roll (1 week) July, 1932	Per cent of change			
			June to July, 1932	July, 1931, to July, 1932		June to July, 1932	July, 1931, to July, 1932	Employment	Pay-roll totals
Anthracite mining	160	60,818	−16.1	−31.6	$1,372,668	−7.8	−35.8	44.5	34.5
Bituminous coal mining	1,109	143,915	−3.1	−23.3	1,606,437	−10.6	−51.6	58.6	24.4
Metalliferous mining	239	18,707	−8.3	−47.5	332,499	−15.8	−59.1	29.5	16.9
Quarrying and nonmetallic mining	593	20,995	−.1	−30.3	329,766	−3.1	−49.2	49.5	29.1
Crude petroleum producing	240	21,331	+2.1	−15.2	654,396	−.4	−24.7	55.4	44.6
Telephone and telegraph	8,042	279,694	−1.0	−8.7	7,580,549	−3.0	−14.7	79.1	79.6
Power and light	3,446	219,930	−1.1	−14.9	6,595,460	−2.2	−19.2	82.3	78.7
Electric-railroad and motor-bus operation and maintenance	492	129,782	−1.1	−11.7	3,591,287	−5.6	−21.6	75.6	65.3
Wholesale trade	2,604	67,449	−.6	−11.8	1,834,775	−2.3	−22.3	76.6	64.7
Retail trade	13,381	313,250	−6.0	−11.1	6,435,994	−7.2	−24.0	74.6	63.3
Hotels	2,489	136,645	+.6	−16.0	1,882,618	−3.2	−27.5	78.4	61.8
Canning and preserving	870	53,553	+31.5	−28.6	607,477	+17.2	−36.0	73.0	47.5
Laundries	983	60,601	−.9	−12.5	976,930	−3.4	−24.1	80.3	66.3
Dyeing and cleaning	375	12,325	−3.2	−16.4	229,233	−8.9	−30.4	82.4	60.0

Indexes of Employment and Earnings for Nonmanufacturing Industries

INDEX numbers of employment and earnings for 14 nonmanufacturing industries are presented in the following table. These index numbers show the variation in employment and earnings in these groups, by months, from January, 1929, to July, 1932, with the exception of the laundries and the dyeing and cleaning groups, for which information over the entire period is not available. The bureau recently secured data concerning employment and earnings for the index base year 1929 from establishments in the laundries and the dyeing and cleaning groups, and has computed index numbers for these two groups, which now appear in this tabulation. The collection of trend-of-employment statistics in these two groups did not begin until the later months of 1930. Therefore indexes for the entire period do not appear in these tables due to lack of available information.

TABLE 2.—INDEXES OF EMPLOYMENT AND EARNINGS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER, 1929, 1930, AND 1931, AND JANUARY TO JULY, 1932

[12-month average, 1929=100]

Month	Anthracite mining								Bituminous coal mining							
	Employment				Earnings				Employment				Earnings			
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	105.7	102.1	90.6	76.2	100.7	105.8	89.3	61.5	106.4	102.5	93.9	80.8	106.1	101.4	73.3	47.0
February	106.0	106.9	89.5	71.2	122.1	121.5	101.9	57.3	107.7	102.4	91.5	77.4	116.6	102.1	68.3	47.0
March	98.0	82.6	82.0	73.7	90.8	78.5	71.3	61.2	106.8	98.6	88.8	75.2	108.6	86.4	65.2	46.8
April	100.7	84.1	85.2	70.1	88.3	75.0	75.2	72.0	100.2	94.4	85.9	65.5	89.2	81.7	58.6	33.9
May	103.7	93.8	80.3	66.9	99.0	98.8	76.1	58.0	96.6	90.4	82.4	62.6	91.9	77.5	54.4	30.7
June	92.9	90.8	76.1	53.0	80.7	94.3	66.7	37.4	94.7	88.4	78.4	60.5	90.0	75.6	52.4	27.3
July	83.2	91.6	65.1	44.5	64.7	84.0	53.7	34.5	94.1	88.0	76.4	58.6	85.6	68.9	50.4	24.4
August	91.1	80.2	67.3	-----	78.4	78.8	56.4	-----	95.7	89.2	77.0	-----	92.8	71.1	50.6	-----
September	101.9	93.8	80.0	-----	103.8	91.6	64.9	-----	97.2	90.5	80.4	-----	98.6	74.9	53.6	-----
October	106.1	99.0	86.8	-----	133.9	117.2	91.1	-----	98.8	91.8	81.3	-----	106.8	79.4	56.2	-----
November	104.0	97.2	83.5	-----	100.5	98.0	79.5	-----	101.0	92.5	81.1	-----	106.0	79.1	54.6	-----
December	107.1	99.1	79.8	-----	137.2	100.0	78.4	-----	101.4	92.5	81.2	-----	108.2	77.7	52.3	-----
Average	100.0	93.4	80.5	[1]65.1	100.0	95.3	75.4	[1]54.6	100.0	93.4	83.2	[1]68.7	100.0	81.3	57.5	[1]36.7
	Metalliferous mining								Quarrying and nonmetallic mining							
January	93.1	95.7	68.3	49.3	88.0	92.7	55.0	29.7	91.6	79.6	64.4	48.9	85.9	71.9	50.4	30.2
February	94.6	92.3	65.3	46.9	91.8	92.5	54.6	27.8	91.9	79.8	66.6	47.4	88.9	73.5	54.4	29.6
March	97.0	90.9	63.5	45.0	99.1	90.8	52.8	26.5	96.0	83.0	70.0	46.0	95.0	80.0	58.2	28.7
April	100.6	89.3	63.9	43.3	104.6	88.3	51.4	25.0	99.6	87.4	76.1	48.6	100.5	85.4	62.6	30.0
May	100.8	87.5	62.4	38.3	104.6	85.6	49.3	23.8	104.1	90.8	75.0	50.6	107.1	90.2	62.3	32.3
June	103.8	84.6	60.0	32.2	105.6	81.6	46.1	20.1	106.6	90.3	72.3	49.5	110.5	90.9	60.1	30.0
July	101.5	80.5	56.2	29.5	99.0	71.9	41.3	16.9	104.7	89.9	71.0	49.5	104.7	85.5	57.3	29.1
August	103.2	79.0	55.8	-----	100.1	71.0	40.2	-----	106.7	89.3	68.9	-----	110.3	85.8	55.1	-----
September	102.1	78.1	55.5	-----	102.0	69.9	40.0	-----	106.6	87.7	66.6	-----	109.8	82.5	51.2	-----
October	101.9	77.2	53.8	-----	103.1	68.6	37.4	-----	103.6	84.7	64.5	-----	105.8	79.3	48.7	-----
November	103.0	72.8	52.8	-----	102.2	63.4	35.1	-----	98.6	78.3	59.3	-----	96.0	66.8	43.3	-----
December	98.5	70.1	51.2	-----	99.7	59.9	34.3	-----	90.1	70.2	53.9	-----	85.4	59.9	36.9	-----
Average	100.0	83.2	59.1	[1]40.6	100.0	78.0	44.8	[1]24.3	100.0	84.3	67.4	[1]48.6	100.0	79.3	53.4	[1]30.0
	Crude petroleum producing								Telephone and telegraph							
January	90.0	92.7	74.8	54.9	93.1	94.0	71.5	46.5	94.3	101.6	90.5	83.0	94.5	105.1	96.3	89.1
February	90.4	90.8	73.2	54.4	99.0	88.6	70.0	46.9	95.3	100.2	89.2	82.0	93.0	101.9	94.8	89.6
March	89.6	89.3	72.2	51.4	97.4	91.3	73.2	43.2	96.5	99.4	88.6	81.7	98.7	105.8	97.9	88.2
April	97.6	86.8	69.8	54.9	96.7	86.6	66.3	44.5	97.8	98.9	88.1	81.2	98.3	103.4	95.0	83.4
May	93.9	89.8	67.8	54.5	92.4	85.4	64.7	47.1	100.4	99.7	87.4	80.6	99.4	103.2	94.1	82.8
June	104.1	90.2	65.0	54.2	99.4	87.1	62.7	44.8	101.5	99.8	86.9	79.9	100.0	103.4	95.0	82.1
July	106.0	89.9	65.3	55.4	100.7	88.5	59.2	44.6	102.6	100.0	86.6	79.1	104.1	106.6	93.3	79.6
August	113.2	87.7	62.4	-----	104.7	86.0	56.3	-----	103.7	98.8	85.9	-----	101.8	102.5	92.3	-----
September	108.9	85.0	61.2	-----	110.7	84.0	55.2	-----	102.5	96.8	85.0	-----	100.4	102.2	92.1	-----
October	107.9	85.2	60.4	-----	100.1	82.6	54.4	-----	101.9	94.5	84.1	-----	105.1	100.9	91.6	-----
November	101.1	83.6	57.6	-----	103.8	80.0	52.0	-----	101.9	93.0	83.5	-----	101.2	97.9	89.7	-----
December	97.0	77.4	58.2	-----	102.1	77.2	54.9	-----	101.8	91.6	83.1	-----	103.9	101.3	92.7	-----
Average	100.0	87.4	65.7	[1]54.2	100.0	85.9	61.7	[1]45.4	100.0	97.9	86.6	[1]81.1	100.0	102.9	93.7	[1]85.0
	Power and light								Electric-railroad and motor-bus operation and maintenance [2]							
January	92.9	99.6	99.2	89.3	91.7	99.7	98.6	88.4	99.7	97.1	86.9	79.5	98.7	97.8	85.6	74.3
February	92.6	98.8	97.8	87.2	91.8	100.4	99.7	86.0	99.1	95.1	86.6	78.9	97.6	95.7	87.1	73.6
March	92.8	99.7	96.7	85.5	94.5	102.1	102.4	85.4	97.0	94.4	86.4	77.6	98.0	95.4	88.1	72.4
April	95.9	100.7	97.1	84.8	95.5	102.6	97.6	82.4	98.5	95.2	86.8	78.0	99.5	97.1	86.6	70.7
May	98.4	103.4	97.6	84.0	98.1	104.5	98.7	84.2	100.4	95.2	85.9	76.9	101.0	96.0	85.1	71.2
June	100.7	104.6	97.2	83.2	100.4	107.8	98.3	80.5	101.2	94.8	85.3	76.5	101.7	97.0	84.8	69.2
July	103.2	105.9	96.7	82.3	102.3	106.7	97.4	78.7	102.2	95.3	85.6	75.6	101.9	95.6	83.3	65.3
August	105.4	106.4	95.9	-----	103.8	106.6	96.2	-----	102.2	92.9	84.8	-----	102.0	92.1	81.9	-----
September	105.5	105.2	94.7	-----	106.6	106.1	94.3	-----	101.4	91.8	84.0	-----	101.5	90.5	81.2	-----
October	105.7	104.8	92.7	-----	106.0	105.6	93.2	-----	100.5	91.0	82.7	-----	100.0	88.9	79.0	-----
November	104.7	103.4	91.3	-----	104.1	103.7	93.3	-----	99.4	89.3	81.5	-----	98.4	87.7	79.7	-----
December	102.5	103.2	90.3	-----	105.8	106.3	91.2	-----	98.3	88.8	79.9	-----	99.8	88.6	77.8	-----
Average	100.0	103.0	95.6	[1]85.2	100.0	104.3	96.7	[1]83.7	100.0	93.4	84.7	[1]77.6	100.0	93.5	83.4	[1]71.0

[1] Average for 7 months.

[2] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop group, manufacturing industries, Table 1.

TABLE 2.—INDEXES OF EMPLOYMENT AND EARNINGS FOR NONMANUFACTURING INDUSTRIES, JANUARY TO DECEMBER, 1929, 1930, AND 1931, AND JANUARY TO JULY, 1932—Continued

[12-month average, 1929=100]

Month	Wholesale trade								Retail trade							
	Employment				Earnings				Employment				Earnings			
	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932	1929	1930	1931	1932
January	97.7	100.0	89.5	81.8	96.7	100.0	87.5	74.1	99.2	98.9	90.0	84.3	99.0	99.7	89.4	78.0
February	96.9	98.5	88.2	80.9	96.4	98.3	88.4	72.5	94.6	94.4	87.1	80.5	94.5	96.0	86.7	73.7
March	97.3	97.7	87.4	79.8	98.5	99.7	89.1	71.3	96.2	93.9	87.8	81.4	96.1	95.5	87.5	73.4
April	97.9	97.3	87.4	78.9	97.8	97.9	85.2	68.9	95.5	97.3	90.1	81.6	96.0	97.5	88.3	72.7
May	99.0	96.8	87.1	77.9	99.0	97.4	84.7	69.7	97.3	96.7	89.9	80.9	97.1	97.3	88.0	71.1
June	99.2	96.5	87.1	77.0	98.6	98.6	84.1	66.2	97.4	93.9	89.1	79.4	98.6	96.8	87.6	68.2
July	100.4	96.0	86.8	76.6	100.5	96.0	83.3	64.7	93.6	89.0	83.9	74.6	95.9	91.7	83.3	63.3
August	101.3	95.0	86.5	-----	100.0	93.6	82.1	-----	93.6	85.6	81.8	-----	95.2	87.6	80.3	-----
September	101.9	94.8	86.1	-----	103.3	93.6	81.4	-----	97.6	92.0	86.6	-----	99.2	92.4	83.5	-----
October	102.9	94.2	85.2	-----	102.7	92.9	79.9	-----	101.7	95.5	89.8	-----	102.6	95.1	84.6	-----
November	102.9	92.6	84.1	-----	101.9	91.0	79.7	-----	106.7	98.4	90.9	-----	105.2	96.8	85.4	-----
December	102.6	92.0	83.7	-----	104.7	91.3	77.8	-----	126.2	115.1	106.2	-----	120.6	107.7	94.1	-----
Average	100.0	96.0	86.6	[1]79.0	100.0	95.9	83.6	[1]69.6	100.0	95.9	89.4	[1]80.4	100.0	96.2	86.6	[1]71.5

Month	Hotels								Canning and preserving							
January	97.1	100.4	95.0	83.2	98.5	100.3	91.0	73.9	50.8	46.1	48.9	35.0	57.3	50.3	46.1	31.8
February	99.8	102.4	96.8	84.3	102.0	103.8	93.7	73.9	48.9	45.7	48.3	37.1	59.2	51.5	48.6	32.7
March	100.9	102.4	96.8	84.0	103.4	104.4	93.4	72.4	49.4	49.7	53.0	36.3	54.9	50.8	50.3	31.9
April	99.7	100.1	95.9	82.7	100.6	100.3	89.9	69.6	90.6	74.8	59.6	47.0	98.9	72.6	57.1	37.9
May	98.1	98.0	92.5	80.1	98.9	98.4	87.7	67.0	62.0	65.7	56.0	40.5	71.2	66.9	56.0	36.0
June	99.3	98.0	91.6	78.0	98.7	98.1	85.4	63.8	76.6	83.0	70.6	55.5	71.9	81.5	58.6	40.5
July	101.1	101.3	93.3	78.4	99.8	99.8	85.2	61.8	126.8	126.3	102.2	73.0	109.2	112.7	74.2	47.5
August	102.6	101.5	92.8	-----	99.4	98.6	83.8	-----	184.8	185.7	142.9	-----	180.1	172.0	104.7	-----
September	102.8	100.1	90.6	-----	100.2	97.1	81.9	-----	210.1	246.6	180.1	-----	207.9	214.8	129.4	-----
October	100.6	97.5	87.4	-----	100.2	95.5	79.7	-----	143.3	164.7	108.1	-----	134.5	140.0	77.6	-----
November	100.0	95.2	84.9	-----	99.8	93.6	77.1	-----	95.1	96.7	60.8	-----	91.6	82.9	48.1	-----
December	97.7	93.5	83.1	-----	98.9	91.5	75.4	-----	61.3	61.6	40.7	-----	63.4	57.4	36.9	-----
Average	100.0	99.2	91.7	[1]81.5	100.0	98.5	85.4	[1]68.9	100.0	103.9	80.9	[1]46.3	100.0	96.1	65.6	[1]36.9

Month	Laundries								Dyeing and cleaning							
January	-----	-----	90.5	84.7	-----	-----	86.6	76.4	-----	-----	88.9	82.1	-----	-----	77.7	65.8
February	-----	-----	90.0	82.9	-----	-----	85.6	73.3	-----	-----	87.4	80.5	-----	-----	75.1	62.2
March	-----	-----	89.5	82.0	-----	-----	85.6	71.6	-----	-----	88.0	80.6	-----	-----	75.6	61.7
April	-----	-----	90.5	82.0	-----	-----	86.8	71.4	-----	-----	95.7	83.3	-----	-----	86.3	65.9
May	-----	-----	90.3	81.4	-----	-----	86.5	70.6	-----	-----	96.7	84.5	-----	-----	86.6	67.8
June	-----	-----	91.0	81.0	-----	-----	87.1	68.6	-----	-----	99.0	85.1	-----	-----	89.1	65.3
July	-----	-----	91.8	80.3	-----	-----	87.4	66.3	-----	-----	98.6	82.4	-----	-----	86.2	60.0
August	-----	-----	90.2	-----	-----	-----	84.6	-----	-----	-----	93.5	-----	-----	-----	80.0	-----
September	-----	-----	89.3	-----	-----	-----	84.1	-----	-----	-----	95.3	-----	-----	-----	82.0	-----
October	-----	-----	88.1	-----	-----	-----	81.8	-----	-----	-----	94.2	-----	-----	-----	81.4	-----
November	-----	-----	86.2	-----	-----	-----	78.9	-----	-----	-----	90.1	-----	-----	-----	74.7	-----
December	-----	-----	85.3	-----	-----	-----	77.4	-----	-----	-----	84.9	-----	-----	-----	67.9	-----
Average	100.0	-----	89.4	[1]82.0	100.0	-----	84.4	[1]71.2	100.0	-----	92.7	[1]82.6	100.0	-----	80.3	[1]64.1

[1] Average for 7 months.

Trend of Employment in July, 1932, by States

IN THE following table are shown the fluctuations in employment and earnings in July, as compared with June, 1932, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and earnings in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous coal mining, crude petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundries, and dyeing and cleaning groups are presented. In publishing data concerning public utilities, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group in this State compilation. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly earnings in June and July as reported by identical establishments in this industry are included, however, in the combined total of "All groups."

The per cents of change shown in the accompanying tables, unless otherwise noted, are unweighted per cents of change; that is, the industries included in the groups and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

As the anthracite mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in the summary table are the fluctuations in this industry by State total.

Where the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation but have been included in the State totals for "All groups." Data are not presented for any industrial group where the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	491	43,406	−2.2	$441,622	−10.0	201	30,286	−2.8	$294,553	−10.6
Arkansas	*452*	*13,591*	*−2.6*	*200,750*	*−4.4*	*181*	*8,627*	*−5.6*	*106,873*	*−9.3*
Arizona	356	8,197	−13.5	172,395	−17.8	61	1,994	−13.2	42,991	−16.0
California	*1,390*	*211,199*	*+0.6*	*4,968,646*	*−4.0*	*1,115*	*128,050*	*+2.7*	*2,844,200*	*−4.6*
Colorado	576	27,568	−3.1	545,785	−6.1	121	9,858	−10.0	199,762	−10.6
Connecticut	1,041	114,172	−2.9	2,020,263	−5.1	653	94,519	−3.6	1,501,801	−6.7
Delaware	120	8,980	+4.2	158,746	−4.1	50	5,639	−3.0	102,682	−7.8
District of Columbia	585	27,207	−4.2	674,562	−5.3	57	3,998	−4.7	137,975	−3.5
Florida	486	20,639	−4.4	346,751	−5.9	135	13,351	−5.7	183,489	−9.0
Georgia	626	60,089	−3.2	737,032	−5.1	303	48,252	−3.4	479,913	−4.6
Idaho	194	7,351	+5.8	136,042	+1.4	39	4,067	+11.0	71,550	+11.6
Illinois	[1] *1,495*	*255,928*	*−5.6*	*5,242,800*	*−10.7*	*1,014*	*157,485*	*−7.6*	*2,702,984*	*−13.8*
Indiana	1,181	106,297	−4.8	1,835,140	−9.9	575	78,527	−5.0	1,291,602	−11.9
Iowa	1,104	41,889	−2.0	797,312	−7.4	461	22,731	−2.2	417,790	−8.7
Kansas	[2] *652*	*40,751*	*−3.7*	*886,821*	*−4.6*	*405*	*23,870*	*−.8*	*520,596*	*−3.3*
Kentucky	803	53,728	−1.5	790,421	−5.2	217	19,525	−1.2	294,950	−8.0
Louisiana	486	27,932	−2.4	415,025	−5.1	212	17,402	−2.4	225,076	−5.9
Maine	556	32,875	−.6	540,811	−3.6	183	25,418	−3.4	386,041	−6.2
Maryland	[3] *854*	*71,231*	*−3.5*	*1,362,893*	*−6.6*	*456*	*46,192*	[4] *−4.5*	*800,094*	[4] *−7.9*
Massachusetts	*7,925*	*511,510*	*−3.7*	*6,704,193*	*−4.7*	*1,088*	*128,693*	*−6.5*	*2,202,589*	*−8.8*
Michigan	1,506	282,340	−3.4	6,164,286	−6.9	*408*	*206,328*	*−2.0*	*4,567,720*	*−3.3*
Minnesota	954	59,071	−1.1	1,251,169	−4.8	266	28,635	−3.0	569,351	−8.8
Mississippi	388	8,678	−4.7	106,659	−6.9	79	4,620	([5])	43,682	−10.7
Missouri	1,095	96,308	−1.3	1,996,639	−3.7	510	53,460	+.4	1,000,688	−1.8
Montana	324	5,869	−11.8	141,918	−14.2	51	2,061	+.9	45,029	+1.4
Nebraska	700	21,449	−2.0	470,341	−6.6	132	10,591	−2.0	227,477	−7.9
Nevada	137	1,530	−6.8	41,234	−6.8	22	275	−3.8	7,881	−9.6
New Hampshire	453	30,049	+5.9	477,061	+6.3	188	25,839	+4.8	386,326	+7.5
New Jersey	1,475	176,123	−2.5	3,871,221	−7.5	[6] *705*	*158,736*	*−4.2*	*3,353,312*	*−7.4*
New Mexico	163	4,319	+1.5	71,581	−5.3	22	507	+22.2	7,335	+15.1
New York	*1,669*	*284,966*	*−5.0*	*6,250,441*	*−6.9*	[7] *1,619*	*275,656*	*−5.6*	*6,009,615*	*−7.3*
North Carolina	850	85,529	−2.2	875,441	−8.2	531	80,850	−2.4	800,695	−8.6
North Dakota	255	3,591	+2.0	83,034	+1.9	54	1,156	+5.2	29,543	+6.6
Ohio	4,506	332,838	−2.9	6,083,810	−7.1	1,913	244,653	−3.6	4,269,374	−7.9
Oklahoma	695	24,017	−.6	514,434	−3.8	132	8,753	+([8])	181,228	−4.0
Oregon	518	26,574	−2.1	494,678	−6.8	148	13,859	−5.0	229,139	−11.9
Pennsylvania	4,065	527,460	−5.5	8,728,664	−9.1	*1,720*	*296,680*	*−4.2*	*4,175,788*	*−10.5*
Rhode Island	898	42,638	−5.2	782,338	−4.7	266	31,232	−7.0	512,866	−5.8
South Carolina	318	34,515	+2.9	319,174	+.8	171	31,060	+3.2	262,659	+1.7
South Dakota	153	5,015	−.6	119,742	−2.1	46	1,784	−1.4	33,661	−5.9
Tennessee	723	51,760	−6.0	667,658	−10.5	275	36,137	−6.9	425,364	−12.8
Texas	*688*	*49,967*	*−2.1*	*1,176,799*	*−3.5*	*301*	*25,229*	*−.7*	*529,570*	*−4.1*
Utah	257	11,817	+11.2	196,261	+1.2	79	2,761	−4.2	52,544	−2.8
Vermont	356	8,691	−2.1	167,942	−3.2	121	4,348	−4.1	81,717	−4.3
Virginia	1,227	71,292	+.1	1,101,089	−2.2	428	48,461	+.8	703,620	−1.7
Washington	1,067	45,647	−3.2	915,169	−6.8	245	21,959	−3.6	386,598	−7.0
West Virginia	713	71,963	−5.5	1,048,623	−10.5	180	27,835	−6.6	445,367	−14.1
Wisconsin	[9] *1,074*	*123,613*	*−2.9*	*1,899,141*	*−11.8*	[4] *800*	*94,212*	*−1.3*	*1,278,474*	*−12.6*
Wyoming	182	5,372	−7.3	116,377	−18.4	27	1,304	−2.8	38,111	−6.9

[1] Includes building and contracting.
[2] Includes transportation and financial institutions.
[3] Includes building construction.
[4] Weighted per cent of change.
[5] No change.
[6] Includes laundries.
[7] Includes laundering and cleaning.
[8] Less than one-tenth of 1 per cent.
[9] Does not include hotels.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Wholesale trade					Retail trade				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	16	566	−2.6	$14,640	−9.6	64	1,545	−12.8	$24,245	−8.6
Arkansas	*17*	*475*	*+5.6*	*13,526*	*+5.6*	*142*	*1,605*	*+2.1*	*28,760*	*−.3*
Arizona	19	154	+1.3	4,052	+.7	174	1,440	−2.4	25,264	−7.1
California	*68*	*4,557*	*−.2*	*138,575*	*−1.4*	*95*	*24,386*	*−3.6*	*494,837*	*−3.3*
Colorado	24	696	−.1	21,428	−.3	121	3,438	−6.4	69,368	−5.8
Connecticut	54	1,117	−1.2	31,062	−5.8	118	5,355	+3.0	108,432	+.2
Delaware	8	161	+2.5	4,583	−1.6	8	133	−2.2	2,275	+3.6
District of Columbia	28	359	−.3	11,851	−3.0	403	8,700	−6.3	190,935	−9.7
Florida	45	712	−3.3	17,645	−5.0	62	822	−3.9	16,476	−8.5
Georgia	31	399	+.8	11,016	−3.7	30	1,270	−1.5	19,539	−14.9
Idaho	6	81	−1.2	2,310	−.5	68	658	−4.4	11,909	−2.7
Illinois	*12*	*613*	*−9.1*	*14,152*	*−9.7*	*56*	*16,459*	*−3.0*	*384,681*	*−7.9*
Indiana	64	1,263	−1.9	33,250	−2.4	177	5,712	−5.9	102,110	−9.4
Iowa	35	1,067	+1.0	28,799	−2.5	125	3,002	−7.3	55,013	−9.4
Kansas	*47*	*1,390*	*+.2*	*35,729*	*−3.3*	*57*	*3,044*	*−4.0*	*59,493*	*+.6*
Kentucky	20	458	+9.8	9,528	+.9	31	1,559	+1.0	23,391	−5.6
Louisiana	23	605	+1.5	13,243	−.1	49	2,707	−3.0	40,473	−4.4
Maine	16	449	+2.7	10,142	+.9	71	1,088	−1.0	19,936	−3.9
Maryland	*34*	*795*	*−4.0*	*17,786*	*−3.9*	*40*	*4,914*	*−2.8*	*85,424*	*−4.7*
Massachusetts	*672*	*14,289*	*−0.8*	*391,871*	*−1.5*	*4,096*	*57,554*	*−3.6*	*1,205,849*	*−4.7*
Michigan	58	1,555	−3.8	44,591	−9.5	209	10,470	−7.6	219,800	−7.0
Minnesota	61	3,848	+3.3	108,220	−1.0	278	6,496	−15.7	122,432	−10.6
Mississippi	5	117	−6.4	2,378	+.8	60	454	+2.3	5,678	−.3
Missouri	56	4,974	−.5	121,744	−([1])	134	5,350	−10.4	113,077	−9.5
Montana	10	194	−2.5	5,752	−5.9	85	791	−4.6	18,062	−2.8
Nebraska	33	941	−2.3	26,350	−4.5	191	1,502	−3.7	30,276	−3.1
Nevada	7	70	+4.5	2,755	+1.6	41	255	−5.6	7,253	−3.9
New Hampshire	13	152	−.7	4,158	−3.9	61	557	−1.2	10,222	+.6
New Jersey	29	620	−.6	19,789	−2.2	427	6,914	−6.6	152,284	−9.1
New Mexico	6	121	+21.0	4,199	+4.2	40	277	+4.9	5,788	−1.8
New York	173	4,761	−1.0	152,420	−4.8	402	41,319	−9.6	934,436	−13.5
North Carolina	16	241	+.4	5,801	−4.4	176	581	−7.6	11,171	−11.3
North Dakota	17	247	+2.1	7,316	−.7	40	404	−6.7	6,840	−2.5
Ohio	201	4,271	−2.3	112,063	−2.5	1,422	28,040	−5.9	549,418	−6.8
Oklahoma	48	681	−2.4	17,962	−1.4	115	1,396	−5.0	25,214	−5.9
Oregon	51	1,197	+1.0	33,217	−.9	56	1,620	−4.3	34,965	−2.2
Pennsylvania	127	3,226	+.2	86,585	−.3	340	24,719	−7.8	490,054	−9.9
Rhode Island	39	975	−.9	24,065	−2.7	509	4,798	−1.7	105,469	−3.1
South Carolina	16	200	−1.0	5,144	−1.3	16	401	−7.6	3,978	−5.7
South Dakota	10	128	−.8	3,881	+1.6	14	129	−7.2	2,368	−4.6
Tennessee	35	658	−.8	14,741	−2.1	59	3,144	−9.6	50,196	−8.8
Texas	*120*	*2,598*	*−1.6*	*71,148*	*−2.5*	*86*	*6,321*	*−8.4*	*112,456*	*−12.9*
Utah	15	448	+1.4	11,238	+.3	23	362	−3.7	7,096	+1.0
Vermont	4	90	+2.3	2,470	+3.5	38	431	+.5	7,531	+1.4
Virginia	40	848	−4.2	21,281	+.6	476	4,513	−3.0	87,922	−1.9
Washington	86	2,112	−.7	60,504	−1.8	383	5,474	−9.5	105,091	−9.0
West Virginia	36	552	+.2	15,238	−4.1	49	989	+5.2	17,047	−.3
Wisconsin	*44*	*1,860*	*−3.7*	*39,848*	*−8.4*	*52*	*7,801*	*−2.7*	*120,090*	*−4.9*
Wyoming	8	57	+1.8	1,776	−4.2	47	240	−1.2	6,120	−1.8

[1] Less than one-tenth of 1 per cent.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	7	376	+32.9	$3,100	+14.5	4	681	−4.9	$3,241	−26.3
Arkansas	5	89	−2.2	711	−18.9					
Arizona						16	2,523	−25.5	53,324	−31.4
California	28	622	+1.5	13,412	+6.0	17	1,349	+2.5	34,535	−4.0
Colorado	3	23	+9.5	249	+10.7	10	648	+.5	17,566	−3.9
Connecticut	9	136	+7.9	2,479	+13.0					
Delaware										
District of Columbia										
Florida	7	513	+11.8	4,276	−3.7					
Georgia	18	872	−2.6	7,970	−13.4					
Idaho										
Illinois	25	631	+.5	10,110	−4.3	7	1,514	+1.0	30,856	−13.6
Indiana	37	1,969	+13.3	34,784	+12.6					
Iowa	14	296	+2.1	5,107	−8.7					
Kansas	*21*	*942*	*−3.8*	*20,969*	*−7.0*	*8*	*90*	*−26.2*	*2,761*	*−3.2*
Kentucky	26	755	+14.0	5,668	+19.7					
Louisiana	3	248	−4.6	1,516	−39.1					
Maine	4	44	−10.2	1,215	−13.8					
Maryland	*16*	*503*	*+11.0*	*5,647*	*+26.2*					
Massachusetts	18	391	+2.9	9,581	+3.1					
Michigan	21	546	+1.1	7,076	−23.4	41	4,220	−15.9	44,598	−26.4
Minnesota	6	202	+8.0	3,819	+18.5	33	697	+13.0	9,608	−2.2
Mississippi										
Missouri	11	176	−16.2	2,856	−10.4	11	986	−4.4	18,256	−11.8
Montana	4	19	+11.8	250	−.4	16	105	−21.1	1,993	−40.2
Nebraska	3	132	(5)	1,981	−14.4					
Nevada										
New Hampshire	9	122	−6.9	2,953	−17.1	12	227	−32.4	6,557	−20.6
New Jersey	3	43	+2.4	1,523	−1.7	3	11	−60.7	265	−53.8
New Mexico						4	841	−1.5	14,366	−10.3
New York	42	1,885	−2.9	38,898	+.4					
North Carolina	4	56	+24.4	812	+17.9					
North Dakota										
Ohio	62	1,793	+10.5	29,625	+1.5					
Oklahoma	3	46	(5)	485	+9.7	29	471	+53.4	6,337	+9.6
Oregon						4	71	(5)	1,546	−9.8
Pennsylvania	57	2,486	−10.9	28,215	−13.4					
Rhode Island										
South Carolina	6	133	−12.5	718	−17.8					
South Dakota	3	15	+7.1	289	−10.0					
Tennessee	16	809	+1.5	9,625	−17.0	4	175	−28.6	2,456	−11.5
Texas	*21*	*710*	*−17.4*	*15,597*	*−11.9*					
Utah						10	2,098	−3.8	31,816	−19.0
Vermont	38	2,105	−6.1	44,020	−6.6					
Virginia	16	853	−7.6	7,570	−21.3					
Washington	6	145	−7.6	3,609	−11.0					
West Virginia	7	384	−6.6	3,593	−14.4					
Wisconsin	*13*	*189*	*−1.1*	*2,893*	*−.5*					
Wyoming										

[5] No change.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Bituminous coal mining					Crude petroleum producing				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	37	5,931	+1.0	$40,657	−15.1					
Arkansas	*5*	*55*	*+1.8*	*581*	*−1.1*	8	193	−1.0	$4,557	−2.7
Arizona										
California						37	5,271	−.5	175,250	−1.8
Colorado	35	3,265	−20.6	37,891	−12.3					
Connecticut										
Delaware										
District of Columbia										
Florida										
Georgia										
Idaho										
Illinois	*25*	*1,026*	*−3.9*	*20,699*	*+8.4*	7	138	+3.8	3,059	+1.9
Indiana	39	2,418	+7.7	46,807	+10.8	4	30	+3.4	516	+3.2
Iowa	18	1,772	−4.3	27,617	−14.6					
Kansas	*14*	*544*	*−62.1*	*9,091*	*−57.0*					
Kentucky	130	20,960	−2.2	242,483	−5.3	5	176	+7.3	3,567	+4.3
Louisiana						9	161	−6.9	4,347	−5.8
Maine										
Maryland	*13*	*1,243*	*−2.1*	*6,386*	*−11.4*					
Massachusetts										
Michigan										
Minnesota										
Mississippi										
Missouri	17	959	+4.2	16,815	+2.5					
Montana	7	64	−90.3	2,577	−80.7	5	41	(1)	1,013	−11.1
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	11	1,470	−4.7	20,164	−12.6	3	18	−14.3	1,021	+34.2
New York						5	185	+3.9	4,322	+1.4
North Carolina										
North Dakota										
Ohio	52	4,323	+114.8	52,916	+49.3	4	33	(1)	515	−3.4
Oklahoma	13	255	−19.0	4,319	−8.5	56	4,407	−.6	116,365	−6.0
Oregon										
Pennsylvania	365	52,148	−.2	518,742	−10.3	18	333	−1.2	8,141	+2.2
Rhode Island										
South Carolina										
South Dakota										
Tennessee	14	2,265	−3.9	15,962	−13.8					
Texas						*3*	*6,332*	*+.8*	*243,608*	*+2.8*
Utah	10	1,168	−12.2	20,181	−7.0					
Vermont										
Virginia	33	7,066	−1.2	90,348	−4.8					
Washington	10	334	−71.6	7,882	−71.0					
West Virginia	238	33,661	−6.3	368,295	−11.6	8	352	+11.7	8,701	+10.2
Wisconsin										
Wyoming	30	2,797	−13.4	49,712	−31.4	5	122	−3.9	3,168	−2.3

[1] No change.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Public utilities					Hotels				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	123	1,977	−1.4	$42,761	−3.4	28	1,299	+6.0	$11,085	−2.9
Arkansas	*49*	*1,344*	*+14.1*	*33,671*	*+8.1*	*17*	*814*	*−9.1*	*9,978*	*−13.5*
Arizona	64	1,580	−3.4	35,776	−5.1	13	312	−7.7	4,884	−9.9
California	*41*	*48,565*	*−2.0*	*1,379,191*	*−3.9*	244	10,388	+.3	169,954	−2.5
Colorado	195	5,694	−.9	151,558	−3.5	31	1,170	−.8	17,928	−1.4
Connecticut	134	10,185	+.5	329,526	+.9	33	1,150	−4.7	15,422	−5.0
Delaware	28	1,097	−.8	29,580	−1.2	6	261	+1.2	3,020	+.5
District of Columbia	21	8,295	−.5	242,046	−1.9	52	3,734	−8.5	55,567	−10.9
Florida	183	4,126	−1.1	112,692	−.2	32	669	−4.2	7,409	−2.1
Georgia	184	6,955	−2.4	196,963	−5.2	31	1,377	−6.0	12,081	−1.5
Idaho	56	714	+.4	14,476	−2.4	14	261	−4.8	3,666	+.9
Illinois	*59*	*67,933*	*−1.3*	*1,881,032*	*−7.3*	[10] *49*	*7,468*	*−6.7*	*127,696*	*−6.3*
Indiana	131	10,069	−.1	245,912	−4.1	61	2,664	−6.1	30,395	−12.5
Iowa	372	10,057	+.3	230,586	−4.1	52	1,954	−7.8	20,749	−10.7
Kansas	*24*	*6,999*	*−.8*	*168,446*	*−4.7*	*20*	*521*	*−1.3*	*5,762*	*−4.9*
Kentucky	303	7,181	−1.7	172,353	−.7	38	1,726	−8.2	18,924	−10.5
Louisiana	154	4,486	−.6	106,742	−3.6	22	1,874	−1.4	21,078	−2.9
Maine	171	3,010	−.7	83,225	−4.3	31	1,519	+63.7	19,690	+49.1
Maryland	*93*	*12,923*	*−1.5*	*370,630*	*−2.0*	*26*	*1,401*	*−2.5*	*18,495*	*−10.6*
Massachusetts	[11] *139*	*46,698*	*−.7*	*1,354,357*	*−3.0*	*103*	*5,736*	*−1.8*	*83,222*	*−4.2*
Michigan	415	23,863	−2.1	686,758	−5.3	78	4,436	+.6	59,320	−4.8
Minnesota	200	13,298	+.8	355,930	−2.0	64	3,035	+1.1	38,849	−3.0
Mississippi	202	2,201	−8.8	43,012	−5.2	22	647	+8.9	5,449	+9.2
Missouri	222	23,012	−2.7	623,589	−5.7	76	3,995	−5.6	49,133	−9.0
Montana	111	1,910	−8.4	55,763	−16.0	16	252	([5])	4,047	−.2
Nebraska	296	5,877	−.1	151,738	−5.0	29	1,343	−7.7	15,337	−9.9
Nevada	39	447	+.9	11,706	−5.6	12	198	+7.6	3,812	+16.8
New Hampshire	143	2,158	−1.5	59,305	−5.7	21	885	+143.8	8,614	+133.6
New Jersey	280	23,912	−1.1	725,096	−4.0	95	5,726	+32.5	76,797	+24.3
New Mexico	55	522	+1.8	11,477	−4.4	14	316	+7.1	3,393	−3.7
New York	*15*	*5,603*	*−.9*	*198,353*	+([6])	275	29,791	−.2	478,257	−3.5
North Carolina	77	1,778	−2.3	37,146	−3.8	34	1,278	+7.2	11,852	−1.0
North Dakota	117	1,230	+3.4	31,335	−.2	16	317	−.3	3,822	+3.3
Ohio	492	32,520	−2.0	824,254	−6.3	167	9,460	−.8	122,725	−6.0
Oklahoma	247	6,452	−.7	144,431	−1.8	39	765	−5.9	7,412	−8.6
Oregon	182	5,718	−.7	148,618	−2.5	41	1,086	−.8	15,987	−2.0
Pennsylvania	703	53,488	−.3	1,529,234	−2.3	192	10,462	−1.5	134,543	−6.5
Rhode Island	35	3,569	−2.2	106,665	−2.9	22	618	+55.3	7,894	+40.4
South Carolina	70	1,750	+6.9	38,153	−2.6	17	430	−5.3	3,291	−5.4
South Dakota	58	888	−3.4	23,867	−4.0	15	316	−4.2	3,956	−8.4
Tennessee	251	5,062	−.3	115,268	−3.7	40	2,207	−3.5	20,360	−6.1
Texas	*111*	*6,157*	*−1.7*	*173,724*	*−0.9*	*46*	*2,620*	*−1.8*	*30,796*	*−12.4*
Utah	67	1,705	−3.2	35,201	−1.8	14	547	+2.2	8,323	+3.0
Vermont	121	992	+1.4	23,825	−.2	25	600	+24.2	6,681	+20.0
Virginia	153	5,820	−1.9	147,815	−2.0	38	2,020	−4.4	23,047	−5.7
Washington	205	10,075	−.7	278,636	−2.6	58	2,180	+2.0	27,580	−4.6
West Virginia	124	6,130	+.3	164,089	−.2	41	1,127	−3.3	13,127	−5.0
Wisconsin	[12] *42*	*11,292*	*+.3*	*315,038*	*−4.6*	[10] *41*	*1,223*	*−4.5*	([13])	.....
Wyoming	47	447	−1.1	11,159	−4.3	10	172	−3.9	2,623	−1.5

[5] No change.
[6] Less than one-tenth of 1 per cent.
[10] Includes restaurants.
[11] Includes steam railroads.
[12] Includes steam railways and express.
[13] Data not supplied.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN JUNE AND JULY, 1932, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and cleaning				
	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change	Number of establishments	Number on pay roll July, 1932	Per cent of change	Amount of pay roll (1 week) July, 1932	Per cent of change
Alabama	4	439	+6.6	$4,026	−2.2	4	164	(5)	$1,888	−5.2
Arkansas	*19*	*506*	*−0.6*	*5,524*	*−2.4*					
Arizona	8	385	−.8	5,923	−3.9					
California	[14] *71*	*5,641*	*−.8*	*111,843*	*+1.0*					
Colorado	11	865	−.5	13,281	−2.6	9	135	−3.6	2,773	−7.3
Connecticut	28	1,403	−.7	24,443	−3.7	11	293	+5.4	6,807	−.1
Delaware	4	316	+1.0	4,967	−.4	3	42	+2.4	679	−10.1
District of Columbia	17	1,978	−1.1	33,148	−.8	6	137	−8.1	2,933	−7.6
Florida	5	324	−2.7	3,234	−8.0	3	30	−9.1	424	−12.4
Georgia	13	701	−2.5	7,104	−3.2	5	144	+5.1	1,622	−2.5
Idaho										
Illinois	[14] *18*	*1,302*	*−.8*	*21,519*	*−4.4*					
Indiana	20	1,631	−1.6	22,670	−6.4	9	177	−5.9	2,902	−11.5
Iowa	4	241	+1.3	4,024	−0.1					
Kansas	*26*	*1,037*	*−11.1*	*12,183*	*−7.2*					
Kentucky	18	843	(5)	11,348	−.6	5	230	−2.1	3,400	−6.0
Louisiana										
Maine	24	551	+11.1	8,556	+13.5					
Maryland	*23*	*1,634*	*−1.0*	*26,248*	*−4.6*	*13*	*588*	*−2.5*	*5,161*	*−20.3*
Massachusetts	*104*	*3,649*	*−1.6*	*62,780*	*−5.5*	*122*	*1,868*	*−6.0*	*35,599*	*−10.9*
Michigan	22	1,602	−.4	20,882	−5.5	17	661	−3.4	13,010	−12.8
Minnesota	13	733	−1.6	12,643	−3.0	12	318	−6.7	5,783	−12.8
Mississippi	7	382	+3.0	3,591	−1.2					
Missouri	32	2,491	−1.9	36,408	−2.5	14	420	−5.6	7,364	−11.4
Montana	15	348	−.9	6,398	−4.8					
Nebraska	8	673	−5.6	11,643	−5.4	5	130	−13.9	3,143	−10.0
Nevada	4	58	+3.6	1,270	−4.0					
New Hampshire	16	311	+8.0	5,095	+10.4					
New Jersey	29	3,085	+.6	64,451	−1.4	8	366	−1.6	10,122	−4.8
New Mexico	5	230	−2.1	3,534	−2.5					
New York	71	7,090	−1.0	125,773	−5.3	18	592	−6.5	12,636	−9.0
North Carolina	9	686	+2.2	7,423	−2.2					
North Dakota	9	215	−.5	3,740	−1.2					
Ohio	81	4,611	−1.4	73,180	−4.8	42	1,641	−4.6	28,092	−12.4
Oklahoma	6	558	−1.2	7,411	−4.5	5	214	−.5	3,050	+2.6
Oregon	4	321	−2.4	5,149	−7.2					
Pennsylvania	44	3,398	−3.6	54,084	−5.7	21	1,068	−3.8	18,549	−13.7
Rhode Island	20	1,138	−.3	19,662	−6.2	5	276	−4.8	5,257	−8.9
South Carolina	10	380	+.8	3,642	−2.7	3	66	+3.1	1,052	+.9
South Dakota	5	132	(5)	2,045	−5.6					
Tennessee	15	1,089	+1.6	10,265	−3.2	6	69	−8.0	1,104	−10.6
Texas	17	904	+2.0	11,279	+.1	13	326	(5)	5,642	−6.2
Utah	6	513	−2.7	7,161	−3.2	6	103	−1.0	1,697	−13.2
Vermont	5	83	+5.1	1,009	−.6	3	26	(5)	471	−9.9
Virginia	15	997	+2.6	11,916	+1.8	22	382	+2.1	5,886	+.9
Washington	16	751	−1.2	16,117	−5.0	9	142	−3.4	2,712	−12.3
West Virginia	20	718	−1.9	10,000	+1.7	10	215	+3.9	3,166	−5.6
Wisconsin	[14] *27*	*1,013*	*+2.7*	*15,335*	*−.3*					
Wyoming	5	113	−.9	2,078	−4.5					

[5] No change.

[14] Includes dyeing and cleaning.

Employment and Pay Roll in July, 1932, in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and earnings in July, 1932, as compared with June, 1932, for 13 cities of the United States having a population of 500,000 or over. These fluctuations are based on reports received from identical establishments in each of the months considered.

These city tabulations include all establishments reporting in all of the industrial groups, except building construction in these 13 cities, and also additional employment information secured from banks, insurance companies, garages, and other establishments in these 13 cities. Building-construction data are not included in these totals, as information is not available for all cities at this time.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLL IN JULY, 1932, AS COMPARED WITH JUNE, 1932

City	Number of establishments reporting in both months	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1932	July, 1932		June, 1932	July, 1932	
New York City	1,747	269,510	256,272	−4.9	$7,408,681	$7,028,991	−5.1
Chicago, Ill	1,798	199,009	193,548	−2.7	4,807,610	4,499,488	−6.4
Philadelphia, Pa	627	107,259	103,476	−3.5	2,294,074	2,130,703	−7.1
Detroit, Mich	555	206,819	202,576	−2.1	5,143,651	4,947,852	−3.8
Los Angeles, Calif	531	49,585	48,619	−1.9	1,208,144	1,151,269	−4.7
Cleveland, Ohio	961	77,434	72,110	−6.9	1,584,119	1,411,363	−10.9
St. Louis, Mo	477	63,009	62,325	−1.1	1,343,998	1,295,877	−3.6
Baltimore, Md	561	46,382	44,916	−3.2	938,224	880,243	−6.2
Boston, Mass	2,875	83,550	79,307	−5.1	2,082,324	1,958,920	−5.9
Pittsburgh, Pa	311	48,502	45,291	−6.6	978,678	895,202	−8.5
San Francisco, Calif	874	39,009	38,024	−2.5	952,882	923,950	−3.0
Buffalo, N. Y	269	36,444	36,200	−.7	863,023	817,354	−5.3
Milwaukee, Wis	466	33,892	32,677	−3.6	672,600	625,037	−7.1

Employment in Executive Civil Service of the United States, July, 1932

THERE was a loss of 15,862 employees in the Government service throughout the United States, comparing the number on the pay roll at the end of July, 1932, with the number on the pay roll at the end of July, 1931.

Comparing July with June, 1932, there was a loss of 5,173 employees in the Government service.

These figures do not include the legislative, judicial, or Army and Navy services. The data as shown in the table below were compiled by the various Federal departments and offices and sent to the United States Civil Service Commission where they are assembled. They are tabulated by the Bureau of Labor Statistics and published here by courtesy of the Civil Service Commission and in compliance with the direction of Congress. No information has as yet been collected relative to the amounts of pay rolls. Because of the importance of Washington as a government center, the figures for the District of Columbia and for the Government service outside the District of Columbia are shown separately.

At the end of July, 1932, there were 573,058 employees in the executive civil service of the United States. Of this number, 537,998

were permanent and 35,060 were temporary. In the interval between July 31, 1931, and July 31, 1932, there was a loss of 0.6 of 1 per cent in the number of permanent employees and a loss of 26.7 per cent in the number of temporary employees, making a loss of 2.7 per cent in the entire Government service.

The number of employees in the District of Columbia showed a decrease of 5.6 per cent in July, 1932, as compared with July, 1931, and a decrease of 1.8 per cent comparing July, 1932, with June, 1932.

During the month of July, 1932, 15,002 were hired in the entire Federal service and 20,175 were separated from the service on account of resignation, termination of appointment, death, retirement, or other causes. This indicates a net turnover rate of 2.61 for the month. The turnover rate for the District of Columbia was 0.43.

On July 31, 1932, there were 67,552 employees on the Government pay rolls in the District of Columbia. Of this number, 65,098 were permanent and 2,454 were temporary workers.

EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES JULY 1931, AND JUNE AND JULY, 1932 [1]

Item	District of Columbia			Outside District			Entire Service		
	Permanent	Temporary [2]	Total	Permanent	Temporary [2]	Total	Permanent	Temporary [2]	Total
Number of employees—									
July, 1931	64,620	6,970	71,590	476,492	40,838	517,330	541,112	47,808	588,920
June, 1932	65,619	3,174	68,793	476,735	32,703	509,438	542,354	35,877	578,231
July, 1932	65,098	2,454	67,552	472,900	32,606	505,506	537,998	35,060	573,058
Gain or loss—									
July, 1931–July, 1932	+478	−4,516	−4,038	−3,592	−8,232	−11,824	−3,114	−12,748	−15,862
June, 1932–July, 1932	−521	−720	−1,241	−3,835	−97	−3,932	−4,356	−817	−5,173
Per cent of change—									
July, 1931–July, 1932	+0.7	−64.8	−5.6	−0.8	−20.2	−2.3	−0.6	−26.7	−2.7
June, 1932–July, 1932	−0.8	−22.7	−1.8	−0.8	−0.3	−0.8	−0.8	−2.3	−0.9
Labor turnover, July, 1932:									
Additions	112	184	296	1,916	12,790	14,706	2,028	12,974	15,002
Separations	633	904	1,537	5,751	12,887	18,638	6,384	13,791	20,175
Turnover rate	0.17	6.54	0.43	0.40	39.17	2.90	0.38	36.58	2.61

[1] Certain revisions have been made from time to time by the Civil Service Commission in dropping certain classes of employees previously carried in the tabulations. Thus, in the District of Columbia 68 mail contractors and special-delivery messengers were eliminated from the enumeration in May, 1932, and in the service outside the District 35,800 star-route and other contractors, clerks in charge of mail-contract stations, clerks in third-class post offices, and special-delivery messengers were eliminated in April, 1932, and 835 collaborators of the Department of Agriculture in June, 1932. In the table, in order to make the figures comparable for all the months shown, it was assumed that the number of these employees was the same in June, 1932, and July, 1931, as in the month they were dropped from the tabulation (actual figures not being available from the Civil Service Commission), and the data for those months have been revised accordingly in this table.

[2] Not including field service of the Post Office Department.

Employment in Building Construction in July, 1932

EMPLOYMENT in building construction increased 4.1 per cent in July as compared with June. Earnings increased 8.2 per cent during the same period. These per cents are based on information received from 10,521 firms engaged on building operations in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY, 1932

Locality	Number of firms reporting	Number on pay roll week ending near—		Per cent of change	Amount of pay roll week ending near—		Per cent of change
		June 15	July 15		June 15	July 15	
Alabama: Birmingham	76	509	540	+6.1	$7,844	$7,270	−7.3
California:							
Los Angeles [1]	22	1,382	1,579	+14.3	31,162	35,922	+15.3
San Francisco-Oakland [1]	28	740	770	+4.1	18,064	17,764	−1.7
Other reporting localities [1]	27	658	665	+1.1	16,861	14,812	−12.2
Colorado: Denver	190	804	694	−13.7	20,543	16,134	−21.5
Connecticut:							
Bridgeport	143	652	643	−1.4	16,761	16,203	−3.2
Hartford	243	1,262	1,194	−5.4	34,746	33,779	−2.2
New Haven	205	1,544	1,477	−4.3	45,931	43,992	−4.6
Delaware: Wilmington	102	1,572	1,449	−7.8	36,747	33,383	−9.3
District of Columbia	558	6,886	6,195	−10.0	195,913	171,271	−12.8
Florida:							
Jacksonville	53	282	336	+19.1	4,251	5,015	+18.0
Miami	80	529	530	+.2	10,581	9,655	−8.8
Georgia: Atlanta	122	1,158	1,240	+7.1	15,906	15,692	−1.3
Illinois:							
Chicago [1]	132	1,394	1,127	−19.2	42,242	33,543	−20.6
Other reporting localities [1]	85	725	825	+13.7	19,027	20,284	+6.6
Indiana:							
Fort Wayne	110	714	666	−6.7	15,689	13,997	−10.8
Indianapolis	166	1,110	1,070	−3.6	27,701	27,825	+.4
South Bend	46	272	292	+7.4	4,773	6,396	+34.0
Iowa: Des Moines	99	479	363	−24.2	9,386	7,233	−22.
Kansas: Wichita	60	241	453	+88.0	4,072	8,863	+117.7
Kentucky: Louisville	133	779	887	+13.9	14,864	16,463	+10.8
Louisiana: New Orleans	128	1,632	1,583	−3.0	26,878	25,816	−4.0
Maine: Portland	105	457	487	+6.6	11,754	11,290	−3.9
Maryland: Baltimore [1]	127	1,445	1,356	−6.2	30,660	25,679	−16.2
Massachusetts: All reporting localities [1]	750	6,984	6,560	−6.1	195,736	184,626	−5.7
Michigan:							
Detroit	469	2,536	2,700	+6.5	57,461	58,485	+1.8
Flint	40	183	130	−29.0	3,147	2,359	−25.0
Grand Rapids	104	567	592	+4.4	11,086	12,317	+11.1
Minnesota:							
Duluth	54	206	179	−13.1	3,753	3,348	−10.8
Minneapolis	241	1,707	1,784	+4.5	44,757	44,192	−1.3
St. Paul	144	1,408	1,379	−2.1	34,746	34,662	−.2
Missouri:							
Kansas City [2]	256	2,278	2,018	−11.4	61,776	57,741	−6.5
St. Louis	467	2,454	2,592	+5.6	69,449	70,809	+2.0
Nebraska: Omaha	142	948	928	−2.1	20,335	19,724	−3.0
New York:							
New York City [1]	325	4,158	9,845	+136.8	137,027	401,651	+193.1
Other reporting localities [1]	158	3,642	3,762	+3.3	103,345	113,279	+9.6
North Carolina: Charlotte	40	266	207	−22.2	3,905	2,934	−24.9
Ohio:							
Akron	90	687	363	−47.2	13,586	7,321	−46.1
Cincinnati [3]	500	3,273	3,224	−1.5	93,376	90,750	−2.8
Cleveland	461	2,546	2,195	−13.8	70,659	57,275	−18.9
Dayton	118	439	413	−5.9	9,082	8,784	−3.3
Youngstown	61	266	256	−3.8	4,647	4,939	+6.3
Oklahoma:							
Oklahoma City	96	441	454	+2.9	7,836	7,671	−2.1
Tulsa	57	217	239	+10.1	3,947	3,927	−.5
Oregon: Portland	203	1,175	1,149	−2.2	25,147	24,730	−1.7
Pennsylvania:							
Erie [1]	31	275	205	−25.5	7,188	5,029	−30.0
Philadelphia [1]	521	5,238	5,579	+6.5	129,076	125,773	−2.6
Pittsburgh [1]	247	1,387	1,398	+.8	38,474	40,214	+4.5
Reading-Lebanon [1]	59	439	418	−4.8	8,761	8,080	−7.8
Scranton [1]	38	193	180	−6.7	4,433	4,243	−4.3
Other reporting localities [1]	274	2,137	1,982	−7.3	43,710	40,655	−7.0
Rhode Island: Providence	233	1,647	1,683	+2.2	42,974	42,822	−.4
Rennessee:							
Knoxville	39	379	444	+17.2	5,372	5,842	+8.7
Memphis	98	570	521	−8.6	11,970	10,350	−13.5
Nashville	77	810	704	−13.1	15,803	12,660	−19.9
Texas:							
Dallas	145	819	855	+4.4	13,746	14,429	+5.0
Houston	117	850	666	−21.6	14,713	11,964	−18.7
San Antonio	92	624	506	−18.9	9,753	7,625	−21.8
Utah: Salt Lake City	88	466	331	−28.3	10,039	6,563	−34.6

[1] Data supplied by cooperating State bureaus.
[2] Includes both Kansas City, Mo., and Kansas City, Kans.
[3] Includes Covington and Newport, Ky.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY, 1932—Continued

Locality	Number of firms reporting	Number on pay roll week ending near—		Per cent of change	Amount of pay roll week ending near—		Per cent of change
		June 15	July 15		June 15	July 15	
Virginia:							
Norfolk-Portsmouth	91	712	588	−17.4	$13,212	$10,560	−20.1
Richmond	143	985	1,065	+8.1	20,103	22,031	+9.6
Washington:							
Seattle	174	708	773	+9.2	15,746	18,139	+15.2
Spokane	51	198	207	+4.5	4,162	3,967	−4.7
Tacoma	75	159	146	−8.2	2,885	2,481	−14.0
West Virginia: Wheeling	49	194	175	−9.8	3,936	3,254	−17.3
Wisconsin: All reporting localities [1]	63	1,415	1,470	+3.9	31,571	29,946	−5.1
Total, all localities	10,521	83,812	87,289	+4.1	2,084,786	2,256,432	+8.2

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to June, 1932, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO JUNE, 1932

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7	61.2
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	-------
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	-------
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	-------
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	-------
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	-------
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	-------
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	[1] 59.9

[1] Average for 6 months.

Table 2 shows the total number of employees on the 15th day each of June, 1931, and May and June, 1932, and the total pay roll for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, JUNE, 1931, AND MAY AND JUNE, 1932

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupations	Number of employees at middle of month			Total earnings		
	June 15, 1931	May 15, 1932	June 15, 1932	June, 1931	May, 1932	June, 1932
Professional, clerical, and general	224,357	189,976	184,282	$33,202,013	$25,478,577	$24,733,183
Clerks	122,216	101,265	97,626	17,021,539	12,774,721	12,346,867
Stenographers and typists	20,933	17,953	17,496	2,766,491	2,142,727	2,095,628
Maintenance of way and structures	310,044	236,757	233,848	28,360,419	17,879,653	17,551,482
Laborers, extra gang and work train	39,040	19,975	20,588	2,752,381	1,069,533	1,097,716
Laborers, track and roadway section	165,031	134,026	130,518	11,319,432	7,175,022	6,911,615
Maintenance of equipment and stores	343,686	289,654	273,015	42,927,953	30,092,461	27,932,230
Carmen	71,450	59,116	55,614	10,022,263	6,816,206	6,347,229
Machinists	45,540	40,392	38,186	6,564,094	4,818,253	4,441,722
Skilled trades helpers	74,978	62,580	58,840	7,827,501	5,285,496	4,892,184
Laborers (shops, engine houses, power plants, and stores)	28,307	23,485	22,370	2,563,417	1,846,790	1,714,154
Common laborers (shops, engine houses, power plants, and stores)	36,794	30,512	28,728	2,707,268	1,794,564	1,692,170
Transportation, other than train, engine, and yard	161,739	135,992	133,012	20,171,680	15,363,076	15,000,565
Station yard	27,685	25,962	25,862	4,386,370	3,672,341	3,660,255
Telegraphers, telephoners, and towermen	19,520	17,270	16,858	2,999,497	2,424,877	2,317,599
Truckers (stations, warehouses, and platforms)	23,928	18,152	17,126	2,136,118	1,401,975	1,329,733
Crossing and bridge flagmen and gatemen	18,946	18,127	18,140	1,466,999	1,253,899	1,252,401
Transportation (yard masters, switch tenders, and hostlers)	17,633	14,535	13,850	3,374,149	2,431,750	2,295,725
Transportation, train and engine	244,443	200,818	195,880	47,285,305	33,481,545	32,095,069
Road conductors	28,042	23,213	22,854	6,583,298	4,798,484	4,639,928
Road brakemen and flagmen	54,106	44,418	43,350	8,964,152	6,273,441	6,027,799
Yard brakemen and yard helpers	41,019	33,691	32,626	6,654,722	4,500,488	4,261,174
Road engineers and motormen	32,959	27,467	26,586	8,660,129	6,281,919	6,045,639
Road firemen and helpers	33,590	28,098	27,406	6,265,011	4,502,715	4,323,529
All employees	1,301,902	1,067,732	1,033,887	175,321,519	124,727,062	119,608,254

RETAIL PRICES

Retail Prices of Food in July, 1932

THE following tables are compiled from simple averages of the actual selling prices received monthly by the Bureau of Labor Statistics of the United States Department of Labor from retail dealers.

Table 1 shows for 51 cities of the United States retail prices of food on July 15, 1931, and June 15 and July 15, 1932.

TABLE 1.—AVERAGE RETAIL PRICES OF FOOD IN THE UNITED STATES ON JULY 15, 1931, AND JUNE 15 AND JULY 15, 1932

Article	Unit	July 15, 1931	June 15, 1932	July 15, 1932	Article	Unit	July 15, 1931	June 15, 1932	July 15, 1932
		Cts.	*Cts.*	*Cts.*			*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	39.2	32.8	35.3	Flour	Pound	3.6	3.2	3.2
Round steak	do	34.4	28.4	31.0	Corn meal	do	4.5	3.9	3.8
Rib roast	do	28.3	23.5	24.9	Rolled oats	do	8.0	7.6	7.6
Chuck roast	do	20.8	16.9	18.1	Corn flakes	8-oz. pkg.	8.8	8.6	8.5
Plate beef	do	13.4	10.7	11.2	Wheat cereal	28-oz. pkg.	23.9	22.5	22.3
Pork chops	do	31.8	19.7	25.5	Macaroni	Pound	16.6	15.4	15.2
Bacon, sliced	do	37.0	23.2	23.7	Rice	do	8.1	6.6	6.6
Ham, sliced	do	46.1	34.9	36.0	Beans, navy	do	7.9	5.0	5.0
Lamb, leg of	do	30.0	24.3	24.9	Potatoes	do	2.3	2.0	1.9
Hens	do	30.8	24.1	23.6	Onions	do	4.9	4.7	4.2
Salmon, red, canned.	do	33.4	25.8	24.6	Cabbage	do	3.7	5.4	3.3
					Pork and beans	16-oz. can	8.2	7.2	7.0
Milk, fresh	Quart	12.1	10.8	10.7	Corn, canned	No. 2 can	13.2	10.6	10.5
Milk, evaporated	14½ oz. can	8.3	6.8	6.5	Peas, canned	do	13.9	12.8	12.7
Butter	Pound	31.7	24.1	23.9	Tomatoes, canned	do	10.1	9.5	9.5
Margarine	do	18.4	14.9	14.5	Sugar	Pound	5.6	4.9	5.0
Cheese	do	26.2	22.3	22.0	Tea	do	74.7	71.0	70.3
Lard	do	13.0	7.8	8.5	Coffee	do	32.5	29.7	29.7
Vegetable lard substitute.	do	23.2	19.6	19.3	Prunes	do	11.8	9.4	9.4
					Raisins	do	11.3	11.4	11.5
Eggs, strictly fresh	Dozen	28.6	20.8	22.9	Bananas	Doz	25.7	22.9	23.0
Bread	Pound	7.5	6.9	6.8	Oranges	do	38.2	33.5	32.8

Table 2 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932. The articles included in these groups will be found in the May issue of this publication.

TABLE 2.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS, FOR THE UNITED STATES, BY YEARS, FOR 1913, 1920, 1928, 1929, 1930, AND BY MONTHS, 1931 AND 1932

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913	100.0	100.0	100.0	1931—Continued—			
1920	232.1	185.7	185.1	August	132.0	149.1	111.9
1928	167.2	179.2	150.0	September	130.2	147.7	114.3
1929	164.1	188.4	148.6	October	129.8	142.7	117.0
1930	158.0	175.8	136.5	November	129.1	135.4	114.4
1931: Average for year	135.9	147.0	114.6	December	127.8	129.3	111.4
January	147.1	159.5	123.6	1932:			
February	144.6	153.4	120.2	January	126.4	123.4	106.5
March	142.4	152.5	120.5	February	125.0	117.3	102.9
April	138.9	151.4	116.5	March	124.3	118.9	101.9
May	137.7	149.3	110.3	April	122.9	118.6	97.4
June	136.3	145.7	108.3	May	122.6	115.3	94.3
July	134.3	147.8	109.6	June	122.5	113.4	92.6
				July	121.2	122.6	91.4

Index Numbers of Retail Prices of Food in the United States

In Table 3 index numbers are given which show the changes in the retail prices of specified food articles, and for all articles combined by years, for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932. These index numbers are based on the average for the year 1913 as 100.0.

Table 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920, 1928, 1929, 1930, 1931, AND BY MONTHS FOR 1931 AND 1932

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lamb, leg of	Hens	Milk	Butter
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	207.9	209.9	187.6	183.0
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	208.5	175.6	159.6	147.5
1929	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	212.2	186.4	160.7	143.9
1930	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	185.7	166.7	157.3	120.4
1931	155.1	154.3	146.0	134.4	118.2	138.6	134.8	170.6	156.1	145.5	138.2	92.4
January	167.3	168.2	159.1	152.5	138.0	141.9	148.9	188.1	166.1	153.5	149.4	98.4
February	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	164.6	148.8	146.1	94.8
March	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	164.0	150.2	144.9	97.4
April	157.5	156.5	150.0	139.4	124.8	141.4	141.1	175.5	165.6	153.1	141.6	91.9
May	155.5	154.7	147.0	135.6	119.8	143.3	139.3	172.9	165.1	148.8	138.2	81.5
June	152.4	151.1	142.9	130.6	112.4	140.0	136.7	170.6	161.9	146.0	134.8	80.7
July	154.3	154.3	142.9	130.0	110.7	151.4	137.0	171.4	158.7	144.6	136.0	82.8
August	155.5	155.2	143.9	130.0	109.9	158.6	135.6	171.4	156.6	145.1	136.0	89.8
September	155.1	154.3	142.9	130.6	111.6	153.3	134.1	169.5	152.4	145.1	136.0	96.1
October	152.0	150.7	141.4	129.4	111.6	139.5	127.0	164.3	145.5	140.4	134.8	104.2
November	146.9	144.8	137.9	126.3	109.9	119.0	118.9	155.4	138.1	137.1	134.8	97.4
December	142.9	140.4	134.8	122.5	108.3	103.8	112.2	147.6	131.7	134.3	130.3	95.3
1932:												
January	137.4	135.0	129.8	115.6	101.7	99.5	101.5	139.8	127.5	131.0	129.2	84.3
February	130.7	127.4	123.2	108.1	97.5	91.0	96.7	136.4	125.4	127.2	128.1	77.0
March	129.9	127.8	123.2	108.1	95.9	102.4	95.2	136.1	131.7	128.2	127.0	77.0
April	131.5	128.3	122.7	108.8	95.9	102.4	92.2	134.9	135.4	124.9	123.6	70.0
May	129.9	127.4	120.2	106.3	91.7	94.8	88.5	131.2	132.3	120.7	121.3	65.5
June	129.1	127.4	118.7	105.6	88.4	93.8	85.9	129.7	128.6	113.1	121.3	62.9
July	139.0	139.0	125.8	113.1	92.6	121.4	87.8	133.8	131.7	110.8	120.2	62.4

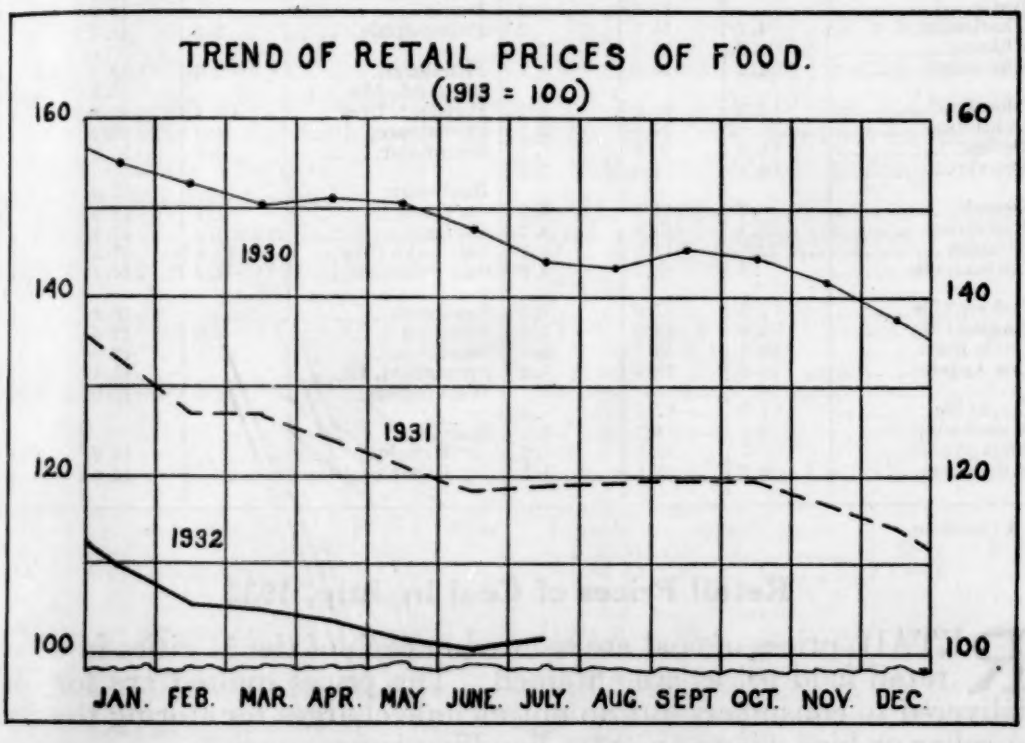
Year and month	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles[1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1928	174.2	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	171.9	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930	158.8	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
1931	127.1	84.2	91.9	135.7	109.1	153.3	94.3	135.3	103.6	138.6	113.4	121.3
January	145.2	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February	141.2	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March	137.1	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4
April	132.6	89.9	79.4	137.5	115.2	163.3	96.6	164.7	103.6	138.2	116.1	124.0
May	124.0	85.4	71.9	137.5	112.1	153.3	95.4	164.7	101.8	136.9	112.4	121.0
June	119.9	82.3	74.8	135.7	112.1	150.0	94.3	141.2	101.8	136.8	111.1	118.3
July	118.6	82.3	82.9	133.9	109.1	150.0	93.1	135.3	101.8	137.3	109.1	119.0
August	119.9	81.0	92.5	132.1	103.0	150.0	93.1	129.4	103.6	138.6	108.7	119.7
September	122.2	79.8	98.0	130.4	100.0	150.0	92.0	117.6	103.6	139.3	108.7	119.4
October	122.6	78.5	109.9	130.4	100.0	146.7	89.7	105.9	101.8	139.0	107.7	119.1
November	121.3	77.2	115.1	130.4	100.0	140.0	86.2	100.0	101.8	138.1	106.7	116.7
December	118.6	70.9	111.6	128.6	100.0	136.7	85.1	105.9	100.0	138.1	105.7	114.3
1932:												
January	115.4	63.9	85.8	126.8	100.0	133.3	85.1	100.0	98.2	136.2	104.4	109.3
February	110.4	59.5	70.1	125.0	100.0	133.3	83.9	100.0	96.4	135.3	104.0	105.3
March	107.7	57.6	61.2	125.0	97.0	130.0	81.6	100.0	94.5	134.7	103.4	105.0
April	105.4	55.1	58.0	123.2	97.0	130.0	79.3	100.0	92.7	133.1	102.3	103.7
May	101.8	52.5	58.0	123.2	97.0	130.0	77.0	105.9	89.1	132.4	100.7	101.3
June	100.9	49.4	60.3	123.2	97.0	130.0	75.9	117.6	89.1	130.5	99.7	100.1
July	99.5	53.8	66.4	121.4	97.0	126.7	75.9	111.8	90.9	129.2	99.7	101.0

[1] 22 articles in 1913–1920; 42 articles in 1921–1932.

Comparison of Retail Food Costs in 51 Cities

TABLE 4 shows for 39 cities the percentage of increase or decrease in the retail cost of food in the United States in June, 1932, compared with the average cost in the year 1913, in June, 1931, and May, 1932. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city. The consumption figures which have been used since January, 1921, are given in the Labor Review for March, 1921 (p. 26). Those used for prior dates are given in the Labor Review for November, 1918 (pp. 94 and 95).

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month



of June schedules were received from 99 per cent of the firms in the 51 cities from which retail prices of food are collected.

Out of about 1,203 food reports 13 were not received—1 each in Baltimore, Bridgeport, Cincinnati, Cleveland, Fall River, Louisville, Minneapolis, Mobile, Newark, Philadelphia, San Francisco, and 2 each in Boston and Seattle.

Out of about 350 bread reports 3 were missing—1 each in Minneapolis, St. Paul, and Scranton.

A perfect record is shown for the following-named cities: Atlanta, Birmingham, Buffalo, Butte, Charleston (S. C.), Chicago, Columbus, Dallas, Denver, Detroit, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Manchester, Memphis, Milwaukee, New Haven, New Orleans, New York, Norfolk, Omaha, Peoria, Pittsburgh, Portland (Me.), Portland (Oreg.), Providence, Richmond, Rochester, St. Louis, Salt Lake City, Savannah, Springfield (Ill.), and Washington.

TABLE 4.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN JULY, 1932, COMPARED WITH THE COST IN JUNE, 1932, JULY, 1931, AND WITH THE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase July, 1932, compared with 1913	Percentage decrease July, 1932, compared with July, 1931	Percentage increase July, 1932, compared with June, 1932	City	Percentage increase July, 1932, compared with 1913	Percentage decrease July, 1932, compared with July, 1931	Percentage increase July, 1932, compared with June, 1932
United States	1.0	15.1	0.9	Minneapolis	[1] 0.2	19.4	0.6
				Mobile		18.9	.8
Atlanta	[1] .4	16.7	[1] .5	Newark	6.5	11.9	1.7
Baltimore	6.4	14.1	3.8	New Haven	7.7	13.5	.4
Birmingham	[1] 1.2	14.9	.8	New Orleans	[1] 2.7	14.7	1.5
Boston	3.5	14.8	3.6				
Bridgeport		11.3	2.9	New York	9.3	12.9	.5
				Norfolk		12.1	.5
Buffalo	6.6	12.2	1.8	Omaha	[1] 7.5	19.4	.3
Butte		17.3	[1] .2	Peoria		13.9	1.6
Charleston, S. C	4.7	15.1	.2	Philadelphia	5.2	16.7	.5
Chicago	11.2	15.9	2.4				
Cincinnati	1.2	20.2	1.7	Pittsburgh	[1] 2.3	18.5	.5
				Portland, Me		13.3	1.9
Cleveland	[1] 1.2	13.2	3.1	Portland, Oreg	[1] 5.4	12.6	1.0
Columbus		15.0	2.2	Providence	4.0	13.2	1.1
Dallas	[1] 6.9	16.8	.7	Richmond	3.0	15.0	1.3
Denver	[1] 5.1	14.0	1.5				
				Rochester		11.0	2.6
Detroit	.6	14.5	5.3	St. Louis	1.1	17.9	.8
Fall River	.1	13.4	1.7	St. Paul		17.2	1.5
Houston		17.9	[1] 1.1	Salt Lake City	[1] 12.8	17.5	.1
Indianapolis	.4	12.7	4.6	San Francisco	3.2	14.7	[1] 1.1
Jacksonville	[1] 7.6	17.0	[1] .5	Savannah		16.4	1.3
Kansas City	[1] 3.9	19.3	[1] 1.8	Scranton	6.6	14.8	[1] .3
Little Rock	[1] 10.3	18.7	5.1	Seattle	1.1	12.2	.3
Los Angeles	[1] 10.3	15.4	[1] .2	Springfield, Ill		15.4	1.0
				Washington	8.0	16.0	1.7
Louisville	[1] 7.0	17.4	.3				
Manchester	2.1	14.7	3.1	Hawaii:			
Memphis	[1] 7.7	15.5	.2	Honolulu		13.9	[1] 4.6
Milwaukee	5.0	15.1	1.7	Other localities		14.6	[1] 5.3

[1] Decrease.

Retail Prices of Coal in July, 1932

RETAIL prices of coal are secured in each of the 51 cities in which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use.

Table 1 shows the average prices of coal per ton of 2,000 pounds and index numbers for the United States on July 15, 1932, in comparison with the average prices on July 15, 1931, and June 15, 1932, together with the percentage change in the year and in the month.

TABLE 1.—AVERAGE RETAIL PRICE PER 2,000 POUNDS OF COAL FOR THE UNITED STATES, AND PER CENT OF CHANGE ON JULY 15, 1932, COMPARED WITH JULY 15, 1931, AND JUNE 15, 1932

Article	Average retail price on—			Per cent of increase (+) or decrease (−) July 15, 1932, compared with—	
	July 15, 1931	June 15, 1932	July 15, 1932	July 15, 1931	June 15, 1932
Pennsylvania anthracite:					
Stove—					
Average price per 2,000 pounds	$14.61	$13.36	$13.37	−8.5	+0.1
Index (1913=100.0)	189.1	173.0	173.0		
Chestnut—					
Average price per 2,000 pounds	$14.59	$13.16	$13.16	−9.8	.0
Index (1913=100.0)	184.3	166.3	166.2		
Bituminous:					
Average price per 2,000 pounds	$8.09	$7.53	$7.50	−7.3	−.4
Index (1913=100.0)	148.9	138.6	138.0		

Table 2 shows average retail prices of coal on June 15 and July 15, 1932, by cities. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JUNE 15, AND JULY 15, 1932

City, and kind of coal	June 15, 1932	July 15, 1932
Atlanta, Ga.:		
Bituminous, prepared sizes	$5.70	$5.64
Baltimore, Md.:		
Pennsylvania anthracite—		
Stove	12.21	12.25
Chestnut	11.75	11.75
Bituminous, run of mine—		
High volatile	6.96	6.86
Birmingham, Ala.:		
Bituminous, prepared sizes	4.98	4.96
Boston, Mass.:		
Pennsylvania anthracite—		
Stove	13.25	13.25
Chestnut	13.00	13.00
Bridgeport, Conn.:		
Pennsylvania anthracite—		
Stove	13.00	13.00
Chestnut	13.00	13.00
Buffalo, N. Y.:		
Pennsylvania anthracite—		
Stove	11.88	11.88
Chestnut	11.63	11.63
Butte, Mont.:		
Bituminous, prepared sizes	9.73	9.73
Charleston, S. C.:		
Bituminous, prepared sizes	9.50	9.50
Chicago, Ill.:		
Pennsylvania anthracite—		
Stove	15.30	15.30
Chestnut	15.05	15.05
Bituminous, prepared sizes—		
High volatile	7.53	7.53
Low volatile	8.97	9.22
Run of mine, low volatile	6.95	6.95
Cincinnati, Ohio:		
Bituminous, prepared sizes—		
High volatile	$4.90	$5.00
Low volatile	6.75	6.75
Cleveland, Ohio:		
Pennsylvania anthracite—		
Stove	13.56	13.63
Chestnut	13.31	13.38
Bituminous, prepared sizes—		
High volatile	6.17	6.19
Low volatile	8.32	8.00
Columbus, Ohio:		
Bituminous, prepared sizes—		
High volatile	5.06	5.15
Low volatile	6.13	6.25
Dallas, Tex.:		
Arkansas anthracite—Egg	14.00	14.00
Bituminous, prepared sizes	10.25	10.00
Denver, Colo.:		
Colorado anthracite—		
Furnace, 1 and 2, mixed	14.75	14.75
Stove, 3 and 5 mixed	14.75	14.75
Bituminous, prepared sizes	7.64	7.95
Detroit, Mich.:		
Pennsylvania anthracite—		
Stove	13.00	12.92
Chestnut	12.79	12.71
Bituminous, prepared sizes—		
High volatile	6.06	5.91
Low volatile	6.68	6.95
Run of mine, low volatile	6.19	6.31
Fall River, Mass.:		
Pennsylvania anthracite—		
Stove	14.00	14.25
Chestnut	13.75	14.00

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JUNE 15, AND JULY 15, 1932—Continued

City, and kind of coal	June 15, 1932	July 15, 1932
Houston, Tex.:		
Bituminous, prepared sizes	$9.40	$9.20
Indianapolis, Ind.:		
Bituminous, prepared sizes—		
High volatile	4.84	4.79
Low volatile	6.71	6.71
Run of mine, low volatile	5.70	5.55
Jacksonville, Fla.:		
Bituminous, prepared sizes	9.50	9.00
Kansas City, Mo.:		
Arkansas anthracite—		
Furnace	10.81	10.88
Stove No. 4	12.33	12.50
Bituminous, prepared sizes	5.85	5.85
Little Rock, Ark.:		
Arkansas anthracite—Egg	11.75	11.75
Bituminous, prepared sizes	8.33	8.17
Los Angeles, Calif.:		
Bituminous, prepared sizes	15.25	15.13
Louisville, Ky.:		
Bituminous, prepared sizes—		
High volatile	4.63	4.68
Low volatile	6.75	6.75
Manchester, N. H.:		
Pennsylvania anthracite—		
Stove	14.50	14.50
Chestnut	14.50	14.50
Memphis, Tenn.:		
Bituminous, prepared sizes	6.73	6.94
Milwaukee, Wis.:		
Pennsylvania anthracite—		
Stove	14.45	14.45
Chestnut	14.20	14.20
Bituminous, prepared sizes—		
High volatile	6.97	6.97
Low volatile	8.78	8.75
Minneapolis, Minn.:		
Pennsylvania anthracite—		
Stove	16.75	16.75
Chestnut	16.50	16.50
Bituminous, prepared sizes—		
High volatile	9.60	9.62
Low volatile	11.87	11.87
Mobile, Ala.:		
Bituminous, prepared sizes	7.72	7.31
Newark, N. J.:		
Pennsylvania anthracite—		
Stove	11.75	11.75
Chestnut	11.50	11.50
New Haven, Conn.:		
Pennsylvania anthracite—		
Stove	13.65	13.65
Chestnut	13.65	13.65
New Orleans, La.:		
Bituminous, prepared sizes	8.64	8.07
New York, N. Y.:		
Pennsylvania anthracite—		
Stove	11.92	12.02
Chestnut	11.67	11.77
Norfolk, Va.:		
Pennsylvania anthracite—		
Stove	12.50	12.50
Chestnut	12.50	12.50
Bituminous, prepared sizes—		
High volatile	6.50	6.50
Low volatile	7.50	7.50
Run of mine, low volatile	6.50	6.50
Omaha, Nebr.:		
Bituminous, prepared sizes	8.69	8.73
Peoria, Ill.:		
Bituminous, prepared sizes	$6.08	$6.10
Philadelphia, Pa.:		
Pennsylvania anthracite—		
Stove	11.00	11.00
Chestnut	10.75	10.75
Pittsburgh, Pa.:		
Pennsylvania anthracite, chestnut	13.25	12.88
Bituminous, prepared sizes	4.39	4.04
Portland, Me.:		
Pennsylvania anthracite—		
Stove	15.36	15.36
Chestnut	15.12	15.12
Portland, Oreg.:		
Bituminous, prepared sizes	11.98	11.96
Providence, R. I.:		
Pennsylvania anthracite—		
Stove	[1] 14.00	[1] 14.00
Chestnut	[1] 13.75	[1] 13.75
Richmond, Va.:		
Pennsylvania anthracite—		
Stove	12.75	12.88
Chestnut	12.75	12.88
Bituminous, prepared sizes—		
High volatile	6.67	6.67
Low volatile	7.15	7.43
Run of mine, low volatile	6.25	6.39
Rochester, N. Y.:		
Pennsylvania anthracite—		
Stove	12.63	12.38
Chestnut	12.38	12.13
St. Louis, Mo.:		
Pennsylvania anthracite—		
Stove	14.72	14.72
Chestnut	14.72	14.72
Bituminous, prepared sizes	5.48	5.16
St. Paul, Minn.:		
Pennsylvania anthracite—		
Stove	16.75	16.75
Chestnut	16.50	16.50
Bituminous, prepared sizes—		
High volatile	9.50	9.55
Low volatile	11.87	11.87
Salt Lake City, Utah:		
Bituminous, prepared sizes	7.63	7.58
San Francisco, Calif.:		
New Mexico anthracite, Cerillos egg	25.00	25.00
Colorado anthracite, egg	24.50	24.50
Bituminous, prepared sizes	15.00	15.00
Savannah, Ga.:		
Bituminous, prepared sizes	[2] 8.37	[2] 8.28
Scranton, Pa.:		
Pennsylvania anthracite:		
Stove	8.63	8.63
Chestnut	8.48	8.35
Seattle, Wash.:		
Bituminous, prepared sizes	10.17	9.01
Springfield, Ill.:		
Bituminous, prepared sizes	4.34	4.39
Washington, D. C.:		
Pennsylvania anthracite—		
Stove	[3] 13.56	[3] 13.56
Chestnut	[3] 13.26	[3] 13.26
Bituminous, prepared sizes—		
High volatile	[3] 8.29	[3] 8.29
Low volatile	[3] 9.86	[3] 9.86
Run of mine, mixed	[3] 7.50	[3] 7.50

[1] The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

[2] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

[3] Per ton of 2,240 pounds.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, 1913 to July, 1932

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1931, inclusive, and by months from January, 1931, to date:

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100.0]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	93.3	134.4	131.3
1919	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2	97.6
1922	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8	96.7
1923	98.6	92.7	104.2	111.3	97.3	109.3	108.7	101.1	108.9	99.7	100.6
1924	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1931:											
January	73.1	80.7	88.7	71.3	73.3	86.9	83.8	84.5	88.3	72.2	78.2
February	70.1	78.0	86.9	70.9	72.5	86.5	82.5	83.3	88.1	71.5	76.8
March	70.6	77.6	87.6	70.0	68.3	86.4	82.5	82.9	88.0	72.0	76.0
April	70.1	76.3	87.5	68.2	65.4	85.7	81.5	81.3	87.9	71.5	74.8
May	67.1	73.8	87.6	67.4	65.3	85.0	80.0	80.5	86.8	70.5	73.2
June	65.4	73.3	88.0	66.6	62.9	84.4	79.3	79.4	86.4	69.7	72.1
July	64.9	74.0	89.4	66.5	62.9	84.3	78.1	78.9	85.7	69.7	72.0
August	63.5	74.6	88.7	65.5	66.5	83.9	77.6	76.9	84.9	68.3	72.1
September	60.5	73.7	85.0	64.5	67.4	83.9	77.0	76.3	82.7	68.2	71.2
October	58.8	73.3	82.5	63.0	67.8	82.8	76.1	75.6	81.0	66.6	70.3
November	58.7	71.0	81.6	62.2	69.4	82.6	76.2	76.1	80.9	68.7	70.2
December	55.7	69.1	79.8	60.8	68.3	82.2	75.7	76.1	78.5	66.8	68.6
1932:											
January	52.8	64.7	79.3	59.9	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February	50.6	62.5	78.3	59.8	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March	50.2	62.3	77.3	58.7	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April	49.2	61.0	75.0	57.0	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May	46.6	59.3	72.5	55.6	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June	45.7	58.8	70.8	53.9	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July	47.9	60.9	68.6	52.7	72.3	79.2	69.7	73.0	74.0	64.3	64.5

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES, JULY, 1931, AND JUNE AND JULY, 1932

[1926=100.0]

Group	July, 1931	June, 1932	July, 1932
Raw materials	64.3	53.2	54.7
Semimanufactured articles	69.3	57.6	55.5
Finished products	76.1	70.0	70.5
Nonagricultural commodities	73.5	67.8	68.0
All commodities other than farm products and foods	73.9	70.1	69.7

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of July will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR THE WEEKS OF JULY, 1932

[1926=100.0]

Group	Week ending—				
	July 2	July 9	July 16	July 23	July 30
All commodities	64.4	64.8	65.0	64.5	64.7
Farm products	46.9	48.1	48.7	47.8	48.4
Foods	60.1	60.7	61.2	61.0	61.5
Hides and leather products	70.0	69.2	68.5	68.5	69.3
Textile products	53.3	52.9	52.4	52.3	52.3
Fuel and lighting	72.6	73.3	72.8	72.8	72.8
Metals and metal products	79.8	80.1	80.3	79.0	79.1
Building materials	70.3	70.7	69.7	69.5	69.5
Chemicals and drugs	72.7	73.0	73.0	73.0	73.2
House-furnishing goods	75.7	75.6	75.6	75.6	75.0
Miscellaneous	64.5	64.2	64.3	64.3	64.5

Wholesale Price Trends During July, 1932

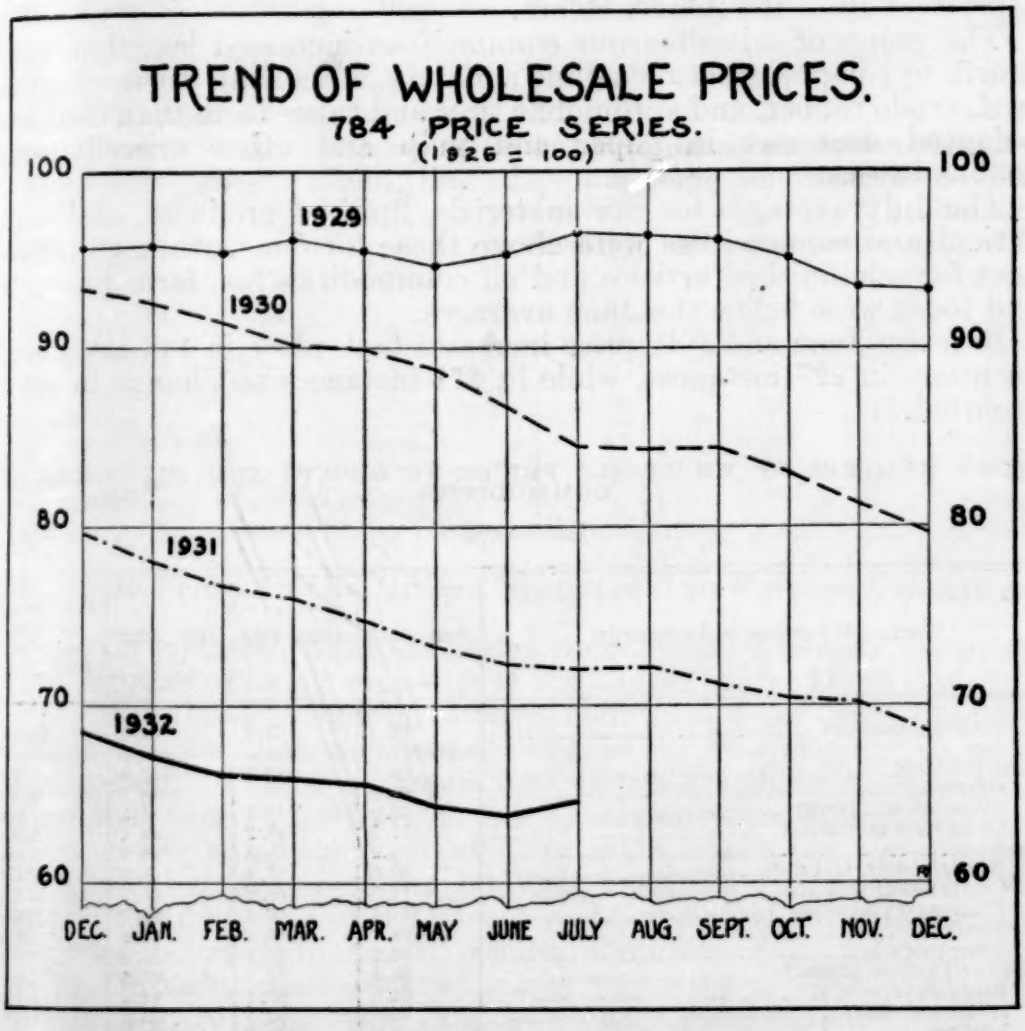
THE index number of wholesale commodity prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a marked increase from June, 1932, to July, 1932. This index number, which includes 784 commodities or price series weighted according to the importance of each article, and based on the average prices for the year 1926 as 100.0, averaged 64.5 for July as compared with 63.9 for June, showing an advance of nearly 1 per cent between the two months. When compared with July, 1931, with an index number of 72.0 a decrease of approximately 10½ per cent has been recorded in the 12 months.

The farm products group made the greatest gains, advancing more than 4¾ per cent in the month period. Increases were recorded in the average prices of corn, rye, cows, steers, hogs, sheep, poultry, cotton, eggs, lemons, and potatoes in Boston and New York. Decreases in the average prices of barley, oats, wheat, calves, dried beans, fresh apples, oranges, peanuts, seeds, leaf tobacco, onions, potatoes in Chicago and Portland, and wool were shown for July.

Among foods, price increases were reported for butter, cheese, bananas, fresh and cured beef, lamb, mutton, fresh and cured pork,

veal, beverages, copra, lard, raw and granulated sugar, edible tallow, tea, and vegetable oils. On the other hand, evaporated milk, rolled oats, rye and wheat flour, corn meal, rice, canned fruits, and dressed poultry averaged lower than in the month before. The group as a whole increased more than 3½ per cent in July when compared with June.

The hides and leather products group decreased slightly more than 3 per cent during the month. Decreases in boots and shoes and other leather products offsetting advances in hides and skins and leather. Textile products as a whole decreased 2¼ per cent from June to July,



due to marked declines for cotton goods, knit goods, silk and rayon, woolen and worsted goods, and other textile products. The subgroup of clothing declined slightly.

In the group of fuel and lighting materials increases in the prices of gas and petroleum products more than offset decreases in the prices of anthracite coal, bituminous coal, and coke. As a whole the group showed a net advance of 1 per cent over the June level.

Metals and metal products showed a downward tendency for July, due to decreases in iron and steel products and nonferrous metals. Increases were reported for plumbing and heating fixtures and motor vehicles while agricultural implements remained at the June level.

In the group of building materials cement and other building materials moved upward and structural steel showed no change in average prices for the two months. Brick and tile, lumber, and paint and paint materials continued their downward movement, forcing the group as a whole to decline approximately 1½ per cent.

Drugs and pharmaceuticals, fertilizer materials, and mixed fertilizers showed recessions during July. Chemicals advanced slightly between the two months, causing the group as a whole to show practically no change for July.

Both furniture and furnishings declined slightly from June to July. As a whole the house-furnishing goods group declined approximately 1 per cent from the month before.

The group of miscellaneous commodities increased less than one-fourth of 1 per cent between June and July, advancing prices of cattle feed, crude rubber, and automobile tires and tubes more than counterbalanced decreases in paper and pulp and other miscellaneous commodities.

The July averages for raw materials, finished products, and nonagricultural commodities were above those for June, while the averages for semifinished articles and all commodities less farm products and foods were below the June averages.

Between June and July price increases took place in 146 instances, decreases in 227 instances, while in 411 instances no change in price occurred.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS AND SUBGROUPS, OF COMMODITIES

[1926=100.0]

Commodity groups and subgroups	July, 1931	June, 1932	July, 1932	Purchasing power of the dollar, July, 1932
All commodities	72.0	63.9	64.5	$1.550
Farm products	64.9	45.7	47.9	2.088
Grains	49.0	37.7	36.7	2.725
Livestock and poultry	63.0	46.7	54.1	1.848
Other farm products	71.3	48.2	48.4	2.066
Foods	74.0	58.8	60.9	1.642
Butter, cheese, and milk	80.6	57.4	58.2	1.718
Cereal products	71.5	66.8	65.7	1.522
Fruits and vegetables	74.2	62.4	59.7	1.675
Meats	73.4	56.0	62.0	1.613
Other foods	70.6	55.4	58.5	1.709
Hides and leather products	89.4	70.8	68.6	1.458
Boots and shoes	93.5	87.5	84.4	1.185
Hides and skins	72.7	32.5	33.5	2.985
Leather	89.8	58.7	60.0	1.667
Other leather products	101.4	96.4	83.7	1.195
Textile products	66.5	53.9	52.7	1.898
Clothing	76.1	67.4	66.0	1.515
Cotton goods	66.8	51.0	50.0	2.000
Knit goods	60.0	49.6	47.8	2.092
Silk and rayon	43.8	27.5	26.2	3.817
Woolen and worsted goods	67.4	55.0	53.6	1.866
Other textile products	75.2	66.7	66.5	1.504
Fuel and lighting materials	62.9	71.6	72.3	1.383
Anthracite coal	90.8	85.3	84.5	1.183
Bituminous coal	83.5	81.8	81.6	1.225
Coke	81.5	76.9	76.3	1.311
Electricity	97.9	105.5	(1)	----------
Gas	103.5	106.3	(1)	----------
Petroleum products	30.3	48.2	49.7	2.012

[1] Data not yet available.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS AND SUBGROUPS, OF COMMODITIES—Continued

Commodity groups and subgroups	July, 1931	June, 1932	July, 1932	Purchasing power of the dollar, July, 1932
Metals and metal products	84.3	79.9	79.2	$1.263
Agricultural implements	94.2	84.9	84.9	1.178
Iron and steel	82.7	79.8	77.2	1.295
Motor vehicles	94.7	93.8	95.3	1.049
Nonferrous metals	61.4	47.5	47.0	2.128
Plumbing and heating	86.8	66.7	67.1	1.490
Building materials	78.1	70.8	69.7	1.435
Brick and tile	83.4	76.1	75.9	1.318
Cement	75.8	77.1	77.3	1.294
Lumber	67.2	57.6	56.9	1.757
Paint and paint materials	79.6	73.3	66.8	1.497
Plumbing and heating	86.8	66.7	67.1	1.490
Structural steel	84.3	81.7	81.7	1.224
Other building materials	83.7	77.6	77.9	1.284
Chemicals and drugs	78.9	73.1	73.0	1.370
Chemicals	82.4	78.6	78.9	1.267
Drugs and pharmaceuticals	62.1	58.3	57.6	1.736
Fertilizer materials	78.7	68.0	66.8	1.497
Mixed fertilizers	80.2	69.0	68.8	1.453
House-furnishing goods	85.7	74.7	74.0	1.351
Furnishings	82.8	75.4	75.1	1.332
Furniture	89.1	74.0	73.0	1.370
Miscellaneous	69.7	64.2	64.3	1.555
Automobile tires and tubes	46.0	39.6	40.1	2.494
Cattle feed	55.8	42.1	42.2	2.370
Paper and pulp	80.6	76.2	76.2	1.312
Rubber, crude	13.2	5.8	6.1	16.393
Other miscellaneous	88.6	84.6	84.5	1.183
Raw materials	64.3	53.2	54.7	1.828
Semimanufactured articles	69.3	57.6	55.5	1.802
Finished products	76.1	70.0	70.5	1.418
Nonagricultural commodities	73.5	67.8	68.0	1.471
All commodities less farm products and foods	73.9	70.1	69.7	1.435

Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn, in certain cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926 to 1931, inclusive, and by months since January, 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi
Base period	1926 (100)	1926 (100)	January–June, 1914 (100)	April, 1914 (100)	July, 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	1913 (100)
Commodities	784	502	47	126	69	118	139	126	400	140
1926	100.0	100.0	123	744	955	163	100	695	134.4	602.0
1927	95.4	97.6	133	847	979	153	101	642	137.6	495.3
1928	96.7	96.4	130	843	979	153	102	645	140.0	461.6
1929	95.3	95.6	130	851	923	150	98	627	137.2	445.3
1930	86.4	86.6	117	744	[1] 118.5	130	90	554	124.6	383.0
1931	73.0	72.2	109	626	[1] 107.5	114	84	502	110.9	.....
1931										
January	78.2	76.7	105	661	[1] 110.1	118	86	541	115.2	341.7
February	76.8	76.0	107	658	[1] 108.9	117	86	538	114.0	338.1
March	76.0	75.1	107	660	[1] 108.8	116	86	539	113.9	339.3
April	74.8	74.5	108	652	[1] 110.5	115	85	540	113.7	337.0
May	73.2	73.0	107	640	[1] 110.3	113	84	520	113.3	331.7
June	72.1	72.2	110	642	[1] 108.7	110	83	518	112.3	326.5
July	72.0	71.7	114	635	[1] 112.1	110	82	500	111.7	324.3
August	72.1	70.9	110	616	[1] 107.8	109	81	488	110.2	321.6
September	71.2	70.0	108	597	[1] 105.2	109	79	473	108.6	319.1
October	70.3	70.4	109	591	[1] 104.6	113	82	457	107.1	322.2
November	70.2	70.6	112	584	[1] 104.3	117	87	447	106.6	320.4
December	68.6	70.3	112	573	[1] 103.8	119	92	442	103.7	318.9
1932										
January	67.3	69.4	114	557	[1] 102.3	118	94	439	100.0	316.6
February	66.3	69.2	112	554	[1] 101.4	119	93	446	99.8	314.4
March	66.0	69.1	113	548	[1] 101.4	117	92	444	99.8	315.0
April	65.5	68.4	112	539	[1] 100.7	115	89	439	98.4	311.3
May	64.4	67.7	116	526	[1] 99.5	114	88	438	97.2	305.1
June	63.9	66.6	115	514	[1] 97.3	113	.....	425	96.2	.....

[1] In gold.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway [2]	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand [2]	South Africa	China	India	Japan
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Ministry of Labor and Prevision	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office	Office of Census and Statistics	National Tariff Commission, Shanghai	Department, etc.,[3] Calcutta	Bank of Japan, Tokyo
Base period	1913 (100)	1913 (100)	1913 (100)	1913 (100)	July, 1914 (100)	1924 (100)	1911 (1,000)	1909–13 (1,000)	1910 (1,000)	1926 (100)	July, 1914 (100)	October, 1900 (100)
Commodities	48	95	74	160	121	150	92	180	188	155	72	56
1926	145	-------	181	149	145	89.1	1,632	1,620	1,387	100.0	148	237
1927	148	-------	172	146	142	85.2	1,817	1,541	1,395	104.4	143	225
1928	149	157	167	148	145	84.4	1,792	1,555	1,354	101.7	145	226
1929	142	149	171	140	141	82.1	1,803	1,552	1,305	104.5	141	220
1930	117	137	172	122	126	71.9	1,596	1,511	1,155	114.8	116	181
1931	97	122	174	111	110	62.6	1,428	1,394	1,119	126.4	96	153
1931												
January	105	128	173	115	115	64.3	1,454	1,475	1,148	119.7	98	159
February	104	126	175	114	115	63.9	1,448	1,441	-------	127.4	99	158
March	103	124	174	113	114	63.7	1,456	1,432	-------	126.1	100	158
April	102	123	172	112	112	63.6	1,447	1,416	1,115	126.2	98	158
May	102	121	169	111	111	62.8	1,440	1,399	-------	127.5	97	154
June	100	120	169	110	110	62.1	1,425	1,392	-------	129.2	93	151
July	97	120	175	110	109	61.5	1,428	1,377	1,104	127.4	93	153
August	94	120	177	109	108	59.9	1,399	1,381	-------	130.3	92	152
September	91	117	178	107	106	59.7	1,391	1,381	-------	129.2	91	150
October	89	119	175	108	106	62.8	1,402	1,385	1,109	126.9	96	147
November	89	119	176	110	106	64.0	1,428	1,394	-------	124.8	97	147
December	85	122	177	111	103	63.7	1,425	1,392	-------	121.8	98	151
1932												
January	84	123	176	109	101	63.7	1,414	1,393	1,083	119.9	97	159
February	83	123	178	110	100	63.4	1,449	1,378	-------	-------	97	161
March	82	122	180	109	99	63.0	1,438	1,374	-------	-------	94	158
April	80	120	181	109	93	61.6	1,431	1,365	1,062	118.2	92	154
May	79	120	177	109	96	60.6	1,408	1,357	-------	117.4	89	150
June	78	120	-------	108	95	59.0	-------	-------	-------	115.5	86	146

[1] Revised figures.
[3] Department of Commercial Intelligence and Statistics.

COST OF LIVING

Home Equipment and Income in Portland, Oreg.

AS A part of a survey of buying habits among Portland, Oreg., families, R. L. Polk & Co.[1] has inquired into the extent to which families in that city have made certain types of purchases; i. e., whether they have certain kinds of equipment, such as pianos, radios, electrical devices, and cars and to what extent savings accounts, home ownership, and telephone installations are provided for in family expenditures. The results obtained in a house-to-house canvass covering 90,440 families and 10 items of expenditure appear in the table following.

PER CENT OF PORTLAND FAMILIES COVERED IN SURVEY WHO HAD EXPENDITURES FOR SPECIFIED ITEMS

Households having—	Per cent of total			
	Class A (6,700 families)	Class B (55,460 families)	Class C (28,280 families)	Total (90,440 families)
Telephone	96.12	69.35	38.40	61.65
Savings account	78.51	55.07	29.21	48.72
Own home	76.42	59.47	52.69	58.60
Own piano	65.97	41.33	23.62	37.62
Radio	93.43	80.35	57.14	74.06
Vacuum cleaner	87.76	59.43	29.63	52.21
Electric washer	54.03	43.20	29.42	39.69
Electric refrigerator	43.28	16.62	3.61	14.53
Automobile	91.34	68.41	41.44	61.68
Average rent	$46.80	$28.00	$18.61	$25.44

In order better to bring out the differences in buying habits as between occupational and high and low income groups, the families included in the study were classified in three groups, A, B, and C. Class A included executives, professional men, merchants, and manufacturers; class B, skilled workers, salesmen, clerks, small business men, farmers, and retired persons; and class C, laborers, domestic servants, clerks, and others. A relatively high economic position is indicated for class A families by the fact that the average rent paid by its members was $46.80, as compared with $28 for class B and $18.61 for class C. Without exception, members of class A had the highest percentage rating for all items covered by the survey, followed by class B, and in all instances persons falling in class C, with presumably the lowest average income level, had the lowest proportion of savings accounts, pianos, electric washers, etc.

[1] Polk, R. L. & Co.: Consumer Study of the Greater Portland Market. Distributed in mimeographed form by the Journal, daily newspaper of Portland, Oreg.

The telephone, radio, and automobile were the most common items in class A, over 90 per cent of the families having each. Vacuum cleaners were nearly as general in this group, 87.76 per cent of the families having them. Of the remaining items, electric washers and refrigerators were least common, but these two kinds of household equipment have been placed on the market in quantity only in recent years.

For all three classes of families home ownership is quite general, running from over three-fourths of all families in class A to over one-half in class C. This is likewise true with respect to ownership of radios, but the spread is wider—93 per cent in class A, 80 per cent in class B, 57 per cent in class C. The returns for class C indicate that the piano may be out of reach for the majority of families, as only 23.62 per cent had this article of furniture. The electric refrigerator is least common among all the items covered in this survey, less than 4 per cent of the total number of class C families having such equipment.

Changes in Purchasing Power and Consumption of Belgian Workers

A COMPARISON of the purchasing power and the consumption of Belgian workers at different periods, described in the International Labor Review for June, 1932, revealed that the position of these workers has improved since the war. While the situation differs as between industries, it is brought out that workers' families are better fed and better clothed, owing to the increase in family incomes. In order to measure the improvement in standards the author of the article under review has made a comparison on the basis of inquiries carried on in Belgium in 1853, 1891, and 1928–29.

Among the comparisons made is one for the years 1891 and 1928–29, which shows that in order to obtain for an adult male the same quantity of 11 major foodstuffs, constituting the major part of the monthly food budget, the worker in 1891 would have had to work 4.89 days, as compared with 4.15 days in 1928–29. In only one out of seven industries—i. e., the glass industry—was it found that more labor was required to obtain the same amount of food in 1928–29 as compared with 1891, the average number of days' work required having risen from 3.61 to 4.10. For the textile industry there was a decrease in days required from 6.39 to 4.61; in building, from 5.60 to 4.30; in wood, 5.39 to 4.35; in metal, 4.87 to 3.94; in mining, 4.42 to 3.92; and in printing, from 3.98 to 3.81. In reality, it is pointed out, the improvement is greater than the figures indicate, because the working day in 1891 was 10 hours for the majority of workers and in 1928–29 it was 8 hours.

The percentage distribution of expenditures per working-class family as of 1853, 1891, and 1929 appears in the following table:

PERCENTAGE DISTRIBUTION OF AVERAGE EXPENDITURE PER WORKING-CLASS FAMILY IN BELGIUM, 1853, 1891, AND 1929

Item of expenditure	Per cent of total		
	1853 (199 families)	1891 (188 families)	1929 (116 families)
Food	64.2	61.3	58.2
Clothing and laundry	14.6	14.5	15.4
Rent, furniture, household articles	7.5	9.6	9.1
Lighting and heating	5.5	5.2	4.9
Health, toilet, hygiene	1.0	1.2	1.3
Intellectual and moral needs	1.7	1.9	3.9
Amusements	3.9	5.7	5.4
Miscellaneous	1.6	.6	1.8
Total	100.0	100.0	100.0

Figures in the table show a continuous decline in the percentage of total expenditures for food. The author of the study under review interprets this decline as an indication of a rising standard of living, since food requirements are the first to be satisfied, and the lower the income level the higher is the percentage spent for food.

Expenditures on intellectual and moral needs, a classification covering church subscriptions, books, and newspapers, show a marked increase, especially as between 1891 and 1929. In this connection it is stated that the average amount spent on publications of all kinds rose by 242.3 per cent between 1891 and 1929.

With regard to the kind of food consumed, it was shown that as the income rose the proportion of animal products consumed also rose. Use of all animal products was not found to have increased, however. For example, expenditure for beef declined and that for pork rose. Also fish did not appear in the worker's diet in 1891, but was used to some extent in 1929. A striking case of decline in expenditure for vegetable products is the decline in that for bread, representing 29.2 per cent of the worker's budget for food in 1891 and 12.3 per cent in 1929, but the expenditure for vegetables increased by about 200 per cent in this same period. Although it is true that fluctuations in price of foodstuffs affects the worker's diet, it is stated that price is not always the decisive factor, and that when earnings make it possible the worker chooses a more expensive article because of his individual preference.

In presenting the figures for the prosperous year 1929 the reader of the Belgian study here reviewed is warned that the present level of real wages and standard of living must have fallen.

Cost-of-Living Budget for Single Women in Nova Scotia

IN ITS first annual report for the year ending September 30, 1931, the Minimum Wage Board of Nova Scotia presents the following cost-of-living budget in connection with the board's duty to establish what it considered a living wage for experienced woman workers:

Board and lodging per week, $6	$312.00
Clothing:	
Footwear	20.00
Stockings	10.00
Underwear	6.00
Corsets	3.00
Slips	3.50
Nightgowns	4.00
Kimono for 2 years, $5	2.50
Hats	12.00
Spring coat for 2 years, $25	12.50
Winter coat for 2 years, $30	15.00
Heavy sweater for 2 years, $6	3.00
Winter dresses	20.00
Summer dresses	15.00
Smocks, 2 at $1.50	3.00
Handkerchiefs	2.00
Gloves	4.00
Scarfs	2.00
Umbrella for 2 years, $4	2.00
Rain coat for 2 years, $5	2.50
Total	142.00
Sundries:	
Laundry and dry cleaning	10.00
Doctor, dentist, optician	20.00
Car fares, 50 cents a week	26.00
Reading matter, postage, stationery	8.00
Church and charity	10.00
Recreation	35.00
Total	109.00
Incidentals: Toilet articles, mending, etc	15.00
Grand total, average wage about $11 per week	578.00

IMMIGRATION AND EMIGRATION

Statistics of Immigration for June, 1932

By J. J. Kunna, Chief Statistician United States Bureau of Immigration

DURING the month of June, 1932, there were 2,586 immigrant aliens admitted to the United States. This is a small increase over the preceding month, but less than the monthly average of 2,965 for the fiscal year ended June 30, 1932.

During the past fiscal year, 35,576 immigrants entered the country, a decrease of 61,563, or 63.4 per cent, as compared with the previous year. The decline in immigration from Europe since a year ago was 41,330, or 66.8 per cent, and from Canada, it was 13,760, or 63.4 per cent, while the decrease for Mexico was 1,162 ,or 34.9 per cent, and for other countries 5,311, or 52 per cent.

Aliens of all classes admitted in the fiscal year 1932 totaled 174,871, of whom 35,576 were immigrants and 139,295 were nonimmigrants. The outgoing aliens numbered 287,657, including 103,295 emigrants and 184,362 nonemigrants, resulting in an excess of 112,786 departures over admissions for the year. This is against 10,237 excess departures in the previous year, and in sharp contrast with 173,789 excess admissions over departures during 1930 and 226,839 during 1929.

Of the 35,576 immigrants or newcomers for permanent residence in this country admitted during the year 1932, a little over one-third (12,983) were charged to the quota; 9,490, or 26.7 per cent, were admitted under the immigration act of 1924 as husbands, wives, and unmarried children of American citizens; and 9,328, or 26.2 per cent, came in as natives of nonquota countries. The remainder, comprising 10.6 per cent of the total immigrants, entered the country as ministers, professors, and other miscellaneous classes under the act.

During the fiscal year 1932 a record number of 19,426 undesirable aliens were deported, principally to Mexico, Europe, Canada, and China. Deportations in the four preceding years numbered 18,142 for 1931, 16,631 for 1930, 12,908 for 1929, and 11,625 for 1928. In the fiscal year just ended, 2,637 indigent aliens were, at their own request, removed to their native land, practically all returning to European countries. Over two-thirds of these indigent aliens last resided in Michigan, New York, Illinois, and Pennsylvania.

INWARD AND OUTWARD PASSENGER MOVEMENT, JULY 1, 1931, TO JUNE 30, 1932

Period	Inward						Outward					
	Aliens admitted			United States citizens arrived	Total	Aliens debarred from entering [1]	Aliens departed			United States citizens departed	Total	Aliens deported after landing [2]
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1931												
July	3,174	12,361	15,535	30,944	46,479	761	7,428	20,450	27,878	46,961	74,839	1,681
August	4,090	16,580	20,670	59,372	80,042	657	9,541	23,009	32,550	65,895	98,445	1,584
September	5,017	20,940	25,957	62,581	88,538	684	8,733	20,393	29,126	42,247	71,373	1,446
October	3,913	17,096	21,009	32,427	53,436	806	10,857	16,525	27,382	35,016	62,398	1,663
November	2,899	9,832	12,731	16,823	29,554	573	11,318	14,271	25,589	23,224	48,813	1,525
December	2,642	8,086	10,728	16,932	27,660	485	10,727	17,370	28,097	24,351	52,448	1,336
1932												
January	2,220	7,242	9,462	17,158	26,620	577	8,550	14,693	23,243	25,016	48,259	1,537
February	1,984	7,346	9,330	19,829	29,159	392	6,188	9,691	15,879	22,920	38,799	1,505
March	2,103	9,248	11,351	22,012	33,363	445	6,239	10,097	16,336	24,718	41,054	2,112
April	2,469	11,266	13,735	23,261	36,996	580	6,746	9,886	16,632	19,980	36,612	1,633
May	2,479	10,579	13,058	19,233	32,291	540	8,577	13,262	21,839	22,152	43,991	1,597
June	2,586	8,719	11,305	18,690	29,995	564	8,391	14,715	23,106	28,357	51,463	1,807
Total	35,576	139,295	174,871	339,262	514,133	7,064	103,295	184,362	287,657	380,837	668,494	19,426

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

Report of British Committee on Empire Migration

IN JULY, 1930, the Economic Advisory Council approved the appointment of a committee "to consider the question of migration from the United Kingdom to oversea parts of the Empire in its economic aspects (*a*) in the immediate future, and (*b*) over a longer period, and to advise whether Government action to stimulate such migration is economically or otherwise desirable." This committee has recently made a report, from which the following data have been taken.[1]

The committee points out that the birth rate in Great Britain has been declining and that therefore emigration as a safety valve against the pressure of increasing population is losing its importance. Moreover, emigration is a selective process which tends to draft off precisely those who are most needed at home.

Emigrants are, therefore, not a random sample of the population. There are more males than females; there is already in this country a large excess of females. They are largely drawn from persons in the prime of life. They are above the average in physique and health, and more than all, they may certainly be assumed to be above the average in just those qualities of enterprise, leadership, and resilience which are needed at home. Thus emigration draws unduly upon those elements in the population of which this country has most need.

Nevertheless, there is at present a surplus of labor in the United Kingdom, especially in certain important industries. Economically, therefore, migration would be of advantage to the country for the next few years as a short-term policy, but would be of doubtful benefit as a long-term policy.

[1] Great Britain. Economic Advisory Council. Committee on Empire Migration. Report. London, 1932. (Cmd. 4075.)

From the standpoint of the Dominions the position is reversed. The depression has fallen with special severity on agriculture and particularly on wheat growing, and as these were the great immigrant-absorbing industries the Dominions have at present little room for newcomers. When matters return to normal they will probably again desire them, but at that time it may not be to the economic advantage of the home country to supply their needs.

Other than the economic considerations, however, must be borne in mind. In many of the Dominions the population is inadequate, "not only for the purpose of the efficient development of the vast territories and resources under their control, but also as a basis for the political, social, and industrial superstructure which has been created." Their territory invites occupation, and for many reasons it would be better for the population to be built up from British rather than from alien stocks. For such reasons the committee considers it important that a steady flow of British migrants to the Dominions should be maintained, although it seems probable that this will henceforth be on a smaller scale than in past years.

Reviewing steps taken in the past to promote migration within the Empire, the report recommends some changes in the terms of the Empire settlement act, and advises that in future the administration of the migration policy should be concentrated in one department.

PUBLICATIONS RELATING TO LABOR

Official—United States

CALIFORNIA.—Legislature. Senate. Special Committee to Investigate Mining Compensation Insurance Rates. *Report. Sacramento, 1931. 20 pp.*

COLORADO.—Bureau of Mines. *Annual report for the year 1931. Denver, 1932. 60 pp.*

IDAHO.—Inspector of Mines. *Thirty-third annual report, for the year 1931. Boise, 1932. 298 pp., map., illus.*

Data on mine wages from this report are given in this issue of the Labor Review.

ILLINOIS.—Department of Mines and Minerals. *Fiftieth coal report of Illinois, 1931. Springfield, 1932. 262 pp.*

Contains also reports covering activities in the production of limestone, oil and gas, sand and gravel, shale and clay, and silica.

LOUISIANA.—Department of Labor and Industrial Statistics. *Sixteenth biennial report, 1931–1932. New Orleans, 1932. 148 pp.*

Wage data from this report are given in this issue of the Labor Review. The publication contains an industrial directory.

MARYLAND.—Commissioner of Labor and Statistics. *Fortieth annual report, 1931. Baltimore, 1932. 60 pp.*

The report includes information on women and children in industry, industrial disputes, and employment and unemployment.

NASSAU COUNTY [N. Y.] EMERGENCY WORK BUREAU.—*Report of activities, November, 1931, to June, 1932. Mineola, N. Y., Bar Building, 1932. 60 pp., maps, diagrams, illus.*

This report gives a detailed account of the emergency work provided for the unemployed in the different villages and districts of the county. The emergency work bureau is one of 107 such bureaus created by cities and counties in the State of New York under the temporary emergency relief act (Acts of 1931, ch. 798).

NEW YORK.—Department of Labor. *Bulletin No. 175: Fatalities—their cause and prevention. Prepared by the Division of Industrial Hygiene. New York, 1932. 21 pp.*

Reviewed in this issue.

PENNSYLVANIA.—Department of Labor and Industry. *Special Bulletin No. 35: Hours and earnings of men and women in the knit goods industry. Harrisburg, 1931. 61 pp., charts.*

PHILIPPINE ISLANDS.—Governor General. *Annual report, 1930. Washington, D. C., 1932. 294 pp. (House Doc. No. 160, 72d U. S. Cong., 1st sess.).*

Includes the reports of the heads of departments of the Philippine government for the year covered. Data on adjustment of claims and on labor disputes, from the report of the Philippine Bureau of Labor, are given in this issue of the Labor Review.

PRESIDENT'S CONFERENCE ON HOME BUILDING AND HOME OWNERSHIP.—*House design, construction, and equipment. Washington, D. C., 1932. 325 pp., plans, illus.*

This volume contains the reports of the committees on design, on construction, and on fundamental equipment. The committee on design, after careful and

extended study of housing and small homes throughout the country, reaches the conclusion that "the design of the average small American dwelling is seriously defective," that the defects are not due to a desire for economy, and that savings could be effected by better planning and the use of better designs for both building and grouping. The committee on construction points out the numerous factors which enter into costs, and makes recommendations with respect to "improved construction of new dwellings involving the principles of economy, quality, and quantity." Perhaps the most fundamental of its conclusions is that too little attention is paid to the construction of homes for families whose annual income is approximately $2,000 or less, and that further study and research work should be given to the question of providing homes at a cost of $5,000 or less, including land. The committee on fundamental equipment discusses the best methods under different circumstances of providing for (1) heating, ventilating, and air conditioning, (2) plumbing and sanitation, (3) electric lighting and wiring, and (4) refrigeration.

PUERTO RICO.—Legislature. Committee to investigate the industrial and agricultural uneasiness and restlessness causing unemployment in Puerto Rico. *Third report. San Juan, 1932. 353 pp. (Spanish), 334 pp. (English).*

ROCHESTER (NEW YORK).—Public Employment Center. *Progress report. Rochester, December 31, 1931. 36 pp., charts.*

Data included in this report were published in the April, 1932, issue of the Labor Review.

TEXAS.—Bureau of Labor Statistics. *Report of committee on resolutions of the Joint Conference of the Legislative and Governor's Committees for Unemployment Relief held at Austin, Tex., October 16, 1931. Austin, 1931. 12 pp.*

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION.—Committee on Public Health Organization. *Report. New York, Century Co., 1932. 345 pp., charts.*

This report covers the forms of public health organization in rural districts and in the cities, State and Federal activities, and the development of voluntary health services and the relationship between such services and official agencies. The administration of child health work as part of official health programs is discussed and the recommendations of the committee as to principles and policies are given. The dissenting opinions of three members of the committee are included.

WISCONSIN.—Industrial Commission. *Bulletin No. 1 on Unemployment Compensation: Handbook on the Wisconsin unemployment compensation act and approved voluntary plans for unemployment benefits or guaranteed employment. Madison, 1932. 96 pp.*

This pamphlet was prepared principally for the guidance of employers in Wisconsin who are considering the adoption of voluntary plans for unemployment benefits or guaranteed employment in accordance with the provisions of the Wisconsin unemployment compensation act. The bulletin contains an example of a standard voluntary benefit plan, discussion of variations from the standard benefit plan, a plan for guaranteed employment, and the text of the Wisconsin law.

UNITED STATES.—Congress. Senate. *Report No. 214 (72d Cong., 1st sess.), to accompany S. 1153: Incorporation of credit unions in the District of Columbia. Report of Mr. Capper, from Committee on the District of Columbia. Washington, 1932. 9 pp.*

—— —— —— Committee on Education and Labor. *Establishment of administration of public works. Hearings (72d Cong., 1st sess.) on S. 2419, a bill to accelerate public construction during the present emergency, to provide employment, to create the administration of public works, to provide for the more effective coordination and correlation of the public works activities of the Government, and for other purposes, March 9–11, 1932. Washington, 1932. 116 pp.*

UNITED STATES.—Congress. Senate. Committee on Manufactures. *Federal cooperation in unemployment relief. Hearing (72d Cong., 1st. sess.) on S. 4592, a bill to provide for cooperation by the Federal Government with the several States in assisting persons, including veterans of the World War, who are suffering hardship caused by unemployment and for other purposes, May 9 and June 4, 1932. Washington, 1932. 79 pp. (In two parts.)*

——— ——— ——— *Federal emergency measures to relieve unemployment. Hearing (72d Cong., 1st sess.) on S. 4076, a bill to provide for emergency construction of certain authorized public works to aid in increasing employment and for other purposes, June 20, 1932. Washington, 1932. 30 pp.*

——— ——— Committee on the District of Columbia. *Incorporation of credit unions. Hearings (72d Cong., 1st sess.) on S. 1153, a bill to provide for the incorporation of credit unions in the District of Columbia, January 15, 29, and February 5, 1932. Washington, 1932. 51 pp.*

——— Department of Commerce. Bureau of Mines. *Bibliography [No. 14] of fire hazards and prevention, and safety in the petroleum industry. Washington, 1932. 10 pp., mimeographed. (Distributed by Petroleum Field Office, U. S. Bureau of Mines, 506 Custom House, San Francisco.)*

——— ——— ——— *Bulletin 349: Liquid oxygen explosives, by G. St. J. Perrott and N. A. Tolch. Washington, 1932. 88 pp., charts, illus.*

A comprehensive description of experimental investigations by the Bureau of Mines and the results in actual blasting in metal mining, coal mining, and quarrying.

——— ——— ——— *Bulletin 352: Safety practices in California gold dredging, by S. H. Ash. Washington, 1932. 31 pp., illus.*

A study of accidents and safety work in connection with the operation of gold dredges, including safety rules of the California Industrial Accident Commission on same.

——— ——— ——— *Bulletin 353: Tests of rock-dust barriers in the experimental mine, by George S. Rice and others. Washington, 1932. 81 pp., diagrams, illus.*

Descriptions of systematic tests to determine the effectiveness of rock-dust barriers as a supplementary defense against the spread of explosions in coal mines from one part of a mine to another.

——— ——— ——— *Technical Paper 514: Accident experience and cost of accidents at Washington metal mines and quarries, by S. H. Ash. Washington, 1932. 35 pp.*

Tables in the report, based on data furnished by the Washington Department of Labor and Industries, show an injury and average frequency rate for Washington mines, quarries, stone crushing, and quarry pits in 1930 of 81.2, and an average severity rate of 15.75, as against average rates for the United States of 61.85 and 8.80, respectively.

——— ——— ——— *Technical Paper 516: Natural ventilation of Michigan copper mines, by G. E. McElroy. Washington, 1932. 40 pp., charts.*

——— ——— ——— *Technical Paper 520: Falls of roof and coal in mines operating in the Sewickley coal bed in Monongalia County, W. Va., by J. W. Paul and J. N. Geyer. Washington, 1932. 31 pp., map, diagrams.*

A study of safety measures used to prevent injury to mine workers from falls of roof and coal.

——— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 566: Union scales of wages and hours of labor, May 15, 1931. Washington, 1932. 238 pp.*

Summaries of the data obtained in this survey were published in the Labor Review for September and November, 1931.

——— ——— Women's Bureau. *Bulletin No. 66–II: Chronological development of labor legislation for women in the United States. Revised December, 1931, by Florence P. Smith. Washington, 1932. 173 pp.*

UNITED STATES.—Department of Labor. Women's Bureau. *Bulletin No. 95: Bookkeepers, stenographers, and office clerks in Ohio, 1914 to 1929, by Amy G. Maher. Washington, 1932. 31 pp., charts.*

A study based on returns furnished by employers to the State division of labor statistics. Figures in relation to earnings and fluctuations of employment are given in detail.

—— —— —— *Bulletin No. 96: Women office workers in Philadelphia, by Harriet A. Byrne. Washington, 1932. 14 pp.*

Part of a study covering a number of States and including many thousands of women, "undertaken because of the growing importance of clerical work in general and clerical work for women in particular." In addition to the usual data concerning hours, wages, and working conditions, it is intended to show something of the effect on the employment of women of changes in office practice, the most striking of these changes being the increased use of such machines as bookkeeping and billing machines, calculating machines, tabulating, addressing, and duplicating machines, and the like. Because of the time such a study will take, it is proposed to publish the results in parts, of which this is the first.

—— Department of the Interior. Office of Education. *Bulletin, 1932, No. 8: Safety education—helps for schools in constructing a course of study, by Florence C. Fox. Washington, 1932. 73 pp.*

—— Employees' Compensation Commission. *Medical facilities available to employees of the United States Government injured in the performance of duty under Federal compensation act of September 7, 1916. Washington, 1932. 45 pp.*

—— Federal Board for Vocational Education. *Bulletin No. 161, Vocational Rehabilitation Series No. 21: Organization and administration of a State program of vocational rehabilitation. Washington, 1932. 59 pp.*

—— —— *Bulletin No. 162, Trade and Industrial Series No. 47: Vocational training costs—a study of the unit cost of vocational education in Cincinnati, Ohio [by John F. Arundel]. Washington, 1932. 32 pp.*

—— Federal Farm Board. *Bulletin No. 8: Cooperative marketing makes steady growth. Washington, 1932. 61 pp., maps, charts.*

Report states that more than a million and a quarter farmers are members of cooperative associations assisted under the agricultural marketing act. Loans from the board's funds have gone into every State but three (Maine, Rhode Island, and Delaware). Describes the national associations for the marketing of grain, livestock, wool, pecans, etc.

Official—Foreign Countries

AUSTRALIA.—[Bureau of Census and Statistics. Tasmania Branch.] *The pocket year book of Tasmania, 1932. Hobart [1932?]. 126 pp.*

Contains data on cost of living, retail prices, wages, production, etc.

BELGIUM.—Caisse Générale d'Épargne et de Retraite. *Compte rendu des opérations et de la situation, 1931. [Brussels?] 1932. 86 pp.*

A report of the operations of the General Savings and Retirement Fund for the year 1931, including information on compensation for industrial accidents.

—— Ministère de l'Industrie, du Travail et de la Prévoyance Sociale. Conseil Supérieur du Travail. *Treizième session, 1924–1929. Brussels, 1931. 408 pp.*

Reports presented to the Belgian Superior Labor Council regarding the application of the laws upon night work of women and children, the 8-hour day, and Sunday rest in industrial and commercial establishments, and upon the proposed law concerning home work.

BRITISH COLUMBIA (CANADA).—Royal Commission on State Health Insurance and Maternity Benefits. *Final report, 1932. Victoria, 1932. 63 pp.*

Recommends that a compulsory health-insurance system, including maternity benefits, be established at an early date in the Province.

—— Workmen's Compensation Board. *Fifteenth annual report, for the year ended December 31, 1931. Victoria, 1932. 30 pp.*

Reviewed in this issue.

DENMARK.—Statistiske Departement. *Husleje og boligforhold, November, 1930. Copenhagen, 1932. 243 pp. (Statistiske Meddelelser, 4 række, 89 bind, 5 hæfte.)*

Contains statistical information in regard to housing in Denmark in November, 1930, including the results of a special investigation of housing in the same year.

EGYPT.—Ministry of the Interior. *Report on labor conditions in Egypt with suggestions for future social legislation, by H. B. Butler. Cairo, 1932. Various paging. (In English, French, and Egyptian.)*

Reviewed in this issue.

GERMANY.—Reichskohlenrat. *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1931. Berlin, 1932. 127 pp., charts.*

This volume contains statistical and graphical information relative to production, earnings, mechanization, etc., in the German coal industry during 1931, with additional figures covering coal production in other parts of the world.

GREAT BRITAIN.—Economic Advisory Council. Committee on Empire Migration. *Report. London, 1932. 90 pp. (Cmd. 4075.)*

Reviewed in this issue.

—— Home Office. *Report on the occurrence of silicosis amongst granite workers, by Dr. C. L. Sutherland, and others. London, 1930. 25 pp.*

Reviewed in this issue.

—— —— Factory Department. *Annual report for the year 1931. London, 1932. 155 pp. (Cmd. 4098.)*

Certain data on the 5-day week in British industry and on the 2-shift system for women and young persons, taken from this report, are given in this issue of the Labor Review.

—— Industrial Health Research Board. *Twelfth annual report, to June 30, 1932. London, 1932. 57 pp.*

This report covers the work of the board in relation to modern industrial conditions, a brief account of the various investigations and researches, and a statement of its organization and its relations with other bodies.

—— Mines Department. Safety in Mines Research Board. *Paper No. 74: International Conference on Safety in Mines, at Buxton, 1931. London, 1932. 67 pp., diagrams, illus.*

Addresses presented at the conference, relating especially to the use of explosives, with discussions on same.

—— —— —— *Tenth annual report, including a report of matters dealt with by the health advisory committee, 1931. London, 1932. 95 pp., diagrams, illus.*

Contains particulars of research in the problems connected with coal dust, firedamp, spontaneous combustion, explosives, falls in mines, mechanical appliances, and other mine hazards.

—— Ministry of Health. *Thirteenth annual report, 1931–32. London, 1932. 320 pp. (Cmd. 4113.)*

The report of the Ministry of Health for England and Wales includes in addition to descriptions of public health work, sections on housing, and national health insurance and contributory pensions.

GREECE.—Ministère de l'Économie Nationale. Direction du Service des Mines. Inspection des Mines. *Statistique de l'industrie minière de la Grèce pendant l'anné 1930. Athens, 1931. 47 pp. (In Greek and French.)*

The annual report of the Greek mine inspection service. Data on average daily wages of mining employees, taken from the report, are given in this issue.

INTERNATIONAL LABOR OFFICE.—*The I. L. O. yearbook, 1931. Geneva, 1932. 547 pp., chart.*

Part I of this volume deals with the general activity of the International Labor Organization, in the year under review. Part II reviews the social movement during that period and includes discussions of the economic situation; conditions of work; social insurance; wages; unemployment; the workers' living conditions, and the general rights of workers.

—— *Studies and Reports, Series I, No. 2: Women's work under labor law—a survey of protective legislation. Geneva, 1932. 264 pp. (World Peace Foundation, Boston, American agent.)*

—— *Studies and reports, Series N, No. 18: Statistics of migration—definitions, methods, classification. Geneva, 1932. 152 pp. (World Peace Foundation, Boston, American agent.)*

It is the purpose of this report to bring about further improvement in migration statistics and better international understanding on the subject.

JAPAN.—Cabinet Impérial. Bureau de la Statistique Générale. *Résumé statistique de l'Empire du Japon. Tokyo, 1932. 161 pp., charts. (In Japanese and French.)*

Among the labor statistics presented in the annual are those on household budgets, placements by public employment offices, labor disputes, unemployment, wages, and production.

MOROCCO.—Service de l'Administration Générale, du Travail et de l'Assistance. *Bulletin du Travail, 1930. [Fez, 1931?] 87 pp.*

The bulletin contains various reports on labor and social questions in Morocco, including a report on wages paid in the principal cities and towns in 1929.

MOSCOW PROVINCE (SOVIET UNION).—Planning Commission. *Building handbook for the Province of Moscow for 1929–30. Moscow, 1930. 160 pp. (In Great-Russian.)*

Contains building plans for the Province of Moscow for the fiscal year 1929–30. For each planned building is given estimated cost, dates of beginning and finishing of the building, and the building organization or trust.

NEW SOUTH WALES (AUSTRALIA).—Registrar of Friendly Societies and Trade-Unions. *Report for the 12 months ended June 30, 1931. Sydney, 1932. 30 pp.*

At the close of the period covered there were 52 societies in operation, with a total membership of 242,344, a decrease of 3.86 per cent as compared with the membership at the close of the preceding year. The total amount spent in benefits was £682,025 ($3,319,075), sickness pay amounting to £307,979 ($1,498,780), funeral donations to £75,747 ($368,623), and medical attendance and medicine to £298,299 ($1,451,672). Each of these items showed a falling off from the amount paid in the preceding year.

NEW ZEALAND.—Unemployment Board. *Unemployment: Statement by minister in charge of unemployment. Wellington, 1931. 5 pp.*

—— —— —— *Wellington, 1932. 3 pp.*

Data on unemployment-relief measures in use in New Zealand, taken from these two reports, are given in this issue of the Labor Review.

NORWAY.—Rikstrygdeverket. *Årsberetning Nr. 35 (1931). Oslo, 1932. 20 pp.*

Annual report on public insurance against accidents and sickness in Norway in 1931.

—— —— *Industriarbeidertrygden: Ulykkestrygden for industriarbeidere M. V. 1929. Oslo, 1932. 39*, 113 pp., charts. (Norges Offisielle Statistikk, VIII, 189.) (In Norwegian and French.)*

Annual report on State industrial-accident insurance in Norway during 1929.

NOVA SCOTIA (CANADA).—Minimum Wage Board. *First annual report, for the year ending September 30, 1931. Halifax, 1932. 26 pp.*

The cost-of-living budget established by this board is given in this issue of the Labor Review.

OSLO (NORWAY).—Statistiske Kontor. *Statistisk årbok for Oslo, 1931. Oslo, 1932. 106 pp.*

This statistical yearbook for Oslo includes data on prices and cost of living, wages, labor unions, activities of employment offices, unemployment, and old-age, invalidity, and sickness insurance. Table heads and table of contents are in French as well as Norwegian.

SCOTLAND.—Department of Health. *Third annual report, 1931. Edinburgh, 1932. 195 pp.*

Certain data on widows', orphans', and old-age pensions, taken from this report, are given in this issue of the Labor Review. The report also contains data on national health insurance and housing.

SOUTHERN RHODESIA.—Statistical Bureau. *Official yearbook of the colony of Southern Rhodesia (No. 3), 1932, covering mainly the period 1926–1930. Salisbury, 1932. 804 pp., map, charts.*

Contains a chapter on retail prices and cost of living.

SOVIET UNION.—Administration Centrale de Statistique Économique et Sociale. *Aperçu statistique sur l'agriculture en URSS pour la période 1928–1931. Moscow, 1932. 31 pp. (In French.)*

Contains statistical tables showing agricultural developments in the Soviet Union in the years 1928 to 1931, including the formation of cooperative farms (*kolkhoz*) and Soviet farms (*sovkhoz*), and mechanization of agriculture.

SWITZERLAND.—Département Fédéral de l'Économie Publique. *Rapports des inspecteurs fédéraux des fabriques sur l'exercice de leurs fonctions dans les années 1930 et 1931. Aarau, 1932. 260 pp.*

A report of the Swiss Federal factory inspectors for the years 1930 and 1931.

Unofficial

ANTHONY, SYLVIA. *Women's place in industry and home. London, George Routledge & Sons (Ltd.), 1932. 243 pp.*

BUREAU OF APPLIED ECONOMICS (INC.). *Bulletin No. 7, Part 2: Standards of living—a compilation of budgetary studies. Washington, 1932. 189 pp.*

Volume 1 of this publication was issued in 1920 and contained the detailed results of the important family-budget studies made up to that time. The present volume supplements the earlier one by giving similarly detailed data regarding subsequent budgetary studies. The introductory chapter reviews the development of budgetary studies and their use in wage arbitrations.

CARROLL, MOLLIE RAY. *Unemployment insurance in Austria. Washington, Brookings Institution (Pamphlet Series No. 10), 1932. 52 pp.*

CLARK, W. IRVING. *Dust hazards and the prevention of injury from the same. Worcester, Mass., Norton Co. [1932?]. [Various paging.]*

This pamphlet contains three papers on the subject of dust hazards, one of which was presented at the meeting of the Association of Governmental Officials

in Industry in May, 1931, the other two having been published in the Journal of Industrial Hygiene in earlier years.

DERSCH, HERMANN, AND VOLKMAR, ERICH. *Arbeitsgerichtsgesetz. Mannheim, J. Bensheimer, 1931. 755 pp. (4th rev. ed.)*

Deals with legislation relating to the labor courts in Germany, including a brief history of such legislation, organization and procedure of the labor courts, and the rendering of decisions and appeals.

FLATOW, GEORG, AND KAHN-FREUND, OTTO. *Betriebsrätegesetz vom 4. Februar 1920. Berlin, Julius Springer, 1931. 726 pp.*

A detailed analysis of the German works councils act of February 4, 1920. Various official regulations on the subject are included in the appendixes.

FLURY, FERDINAND, AND ZERNIK, FRANZ. *Schädliche Gase, Dämpfe, Nebel, Rauch- und Staubarten. Berlin, Julius Springer, 1931. 637 pp., diagrams, illus.*

Contains a treatise on injurious fumes and gases, dampness, smoke, and dust, including their physical and chemical analysis, their toxic effects, preventive measures, and treatment.

GHERARDI, BANCROFT. *Why American standard safety codes are effective. 8 pp., illus. (Reprinted from American Mutual Magazine, Boston, August, 1931; distributed by National Association of Mutual Casualty Companies, 60 East Forty-second Street, New York City.)*

HERSEY, REXFORD B. *Workers' emotions in shop and home; a study of individual workers from the psychological standpoint. Philadelphia, University of Pennsylvania Press, 1932. 441 pp., charts. [Research Studies XVIII, Industrial Research Department, Wharton School of Finance and Commerce.]*

A pioneer undertaking to discover what factors aid in bringing about a worker's satisfactory adjustment to his job and the resultant efficiency.

INDUSTRIAL RELATIONS COUNSELORS (INC.). *Library Bulletin No. 10: Survey of the current literature of industrial relations; semiannual review. New York, 165 Broadway, July, 1932. 37 pp. (Mimeographed.)*

INTERNATIONAL CITY MANAGERS' ASSOCIATION. *Municipal problems in the economic depression. (Part of the proceedings of the eighteenth annual conference of the association held at Louisville, Ky., October 7–10, 1931.) Chicago, 923 East Sixtieth Street, 1931. 91 pp., charts. (Mimeographed.)*

Included in the subjects discussed at this meeting were: Some principles of public relief administration; organizing, financing, and carrying out relief plans; trends in relief and public welfare; and the responsibility of the National Government in the unemployment crisis.

LANE, MARY ROGERS. *Vocations in industry. Scranton, International Textbook Co., 1929. Vol. I, 155 pp.; Vol. II, 204 pp.; Vol. III, 467 pp. Illus.*

The three volumes are based, respectively, on the first three census divisions: Agriculture, forestry, and animal husbandry; mining and mineral industries; and manufacturing and mechanical industries.

LATHAM, ALLAN BROCKWAY. *The Catholic and national labor unions of Canada. Toronto, Macmillan Co. of Canada (Ltd.), 1930. 104 pp. (McGill University Economic Studies, No. 10.)*

A description and evaluation of a recent development in the economic life of the French Canadians.

MCDONALD, JOHN R. H. *Modern housing: A review of present housing requirements in Great Britain, a résumé of postwar housing at home and abroad, and some practical suggestions for future housing. London, John Tiranti & Co., 1931. 136 pp., charts, illus.*

MANCHURIA YEARBOOK, 1931. *Tokyo, East-Asiatic Economic Investigation Bureau, 1931. 347 pp., maps, charts, illus.*

One chapter of this publication deals with immigration and labor and includes data on an industrial census of certain areas of Manchuria as of February, 1930, and wages for Chinese and Japanese in various occupations in South Manchuria in April, 1929.

MERCHANTS' ASSOCIATION OF NEW YORK. *Vacation practices and policies in 1932. New York, 233 Broadway, 1932. 10 pp. (Mimeographed.)*

Reviewed in this issue.

NATIONAL ADVISORY COUNCIL ON RADIO IN EDUCATION. *Economics Series Lectures, Nos. 1–30. Chicago, University of Chicago Press, 1931 and 1932. (Separate pamphlets, various paging.)*

These lectures include the following: Effects of depressions on employment and wages, by William M. Leiserson; Wages in relation to economic recovery, by Leo Wolman; Forward planning of public works to stabilize employment, by Otto T. Mallery; What the consumer should do, by F. W. Taussig; Social insurance, by Paul H. Douglas; Unemployment insurance, by John R. Commons; Land utilization, by M. L. Wilson; and Cooperation as a stabilizing force in agriculture, by Chris L. Christensen.

NATIONAL COMMITTEE ON PRISONS AND PRISON LABOR. *Report presented to the annual meeting, April 11, 1932. New York, 250 West Fifty-seventh Street, 1932. 19 pp.*

NATIONAL CONFERENCE OF CATHOLIC CHARITIES. *Proceedings of seventeenth session, Wilkes-Barre, Pa., September 27–30, 1931. Baltimore, Belvedere Press (Inc.), [1932?]. 316 pp.*

At least six of the addresses at this meeting were concerned directly with labor, their respective subjects being: How far is industry meeting its responsibility in the present crisis; The outlook in unemployment relief; Responsibility of the Federal Government in the present unemployment situation; A program of social action—what the Pope's encyclical says the working people should have; The occupational organization of society; and Catholic doctrine and industrial practice.

NEUVILLE, FRANÇOIS. *Le statut juridique du travailleur étranger en France au regard des assurances sociales, de l'assistance et de la prévoyance sociale. Paris, Librairie de Jurisprudence Ancienne et Moderne, 1931. 173 pp.*

A discussion of the juridical status of foreign workers in France with regard to the provisions of the social-insurance laws and public welfare and assistance.

NEW ENGLAND COUNCIL. *The flexible work day and week: A plan for reemployment. Special Supplement to the New England News Letter, Statler Building, Boston, August 1, 1932. 10 pp.*

Reviewed in this issue.

OGLESBY, CATHARINE. *Business opportunities for women. New York, Harper & Bros., 1932. 300 pp.*

PALMER, GLADYS L. *Union tactics and economic change. Philadelphia, University of Pennsylvania Press, 1932. 228 pp. (Research Studies XIX, Industrial Research Department, Wharton School of Finance and Commerce.)*

A study of the effects of recent industrial changes in the textile trades of Philadelphia upon the problems and policies of three Philadelphia textile unions—Tapestry Carpet Weavers' Union, Full Fashioned Hosiery Workers' Union, and the Upholstery Weavers' Union.

PENNSYLVANIA COMPENSATION RATING AND INSPECTION BUREAU. *Classification experience, policy years 1924, 1925, 1926, 1927, and 1928, taken from Pennsylvania Schedule Z. [Philadelphia, 1932?]. 206 pp.*

PRINCETON UNIVERSITY. Industrial Relations Section. *Company loans to unemployed workers. Princeton, N. J., 1932. 26 pp.* (*Mimeographed.*)
Reviewed in this issue.

READ, MARGARET. *The Indian peasant uprooted—a study of the human machine. New York, Longmans, Green & Co., 1931. 256 pp., illus.*
An attempt to bring within the reach of the average reader some of the findings of the Royal Commission on Labor in India, whose report, published in 19 volumes, is too detailed and technical to have a wide appeal. Miss Read deals with the general question of the effect the increasing industrialization of India has upon the rural masses who are drawn from the village life with which they are familiar into the factories, mines, and workshops.

REDGRAVE'S FACTORY ACTS. *London, Butterworth & Co. (Ltd.), 1931.* [*Various paging.*] (*Fourteenth edition.*)
The editor points out that since the thirteenth edition of this work was issued in 1924 there has been a marked increase in the number and scope of codes of regulation and welfare orders which apply to industrial processes. "The workmen's compensation acts have been consolidated by the act of 1925, and other acts, which are included in this edition, have extended the law so that processes, e. g., the painting of buildings, which were not formerly affected are now regulated. Consequently, although all redundant matter has been eliminated, there is a considerable increase in size." The book contains an introductory table of legal cases bearing on the acts, while the grouping of the acts and regulations has been changed to facilitate reference, and a comprehensive index has been provided for the same purpose.

ROBBINS, E. C., AND FOLTS, F. E. *Industrial management—a case book. New York, McGraw-Hill Book Co. (Inc.), 1932. 757 pp., maps, diagrams.*

REM, C. RUFUS. *Annual medical service in private group clinics. Chicago, Julius Rosenwald Fund, 900 South Homan Avenue, 1932. 11 pp.* (*Reprinted from Modern Hospital, January, 1932.*)
A discussion of the development of private group clinics, including the newer types in which service is provided for groups of persons at an agreed sum per year.

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 113: Costs and standards of living. New York, 130 East Twenty-second Street, June, 1932. 4 pp.*

SCHEFFBUCH, ADOLF. *Der Einfluss der Rationalisierung auf den Arbeitslohn. Stuttgart, W. Kohlhammer, 1931. 334 pp.*
Discusses the influence of the efficiency movement, known in Europe as rationalization, upon the conditions of labor, especially upon wages.

SCRIMSHAW, STEWART. *Apprenticeship principles, relations, procedures. New York, McGraw-Hill Book Co. (Inc.), 1932. 273 pp., chart.*
The purpose of the book is "to review the meaning of apprenticeship in its relation to modern industry; to present its status with reference to labor; to show its relation to the employer; to reveal its inevitable affinity with formal education; and to show its relation to the functions of the State itself." A special study is made of the Wisconsin system on the ground that it presents a case study in State control of apprenticeship. A selected bibliography is appended.

SILK ASSOCIATION OF AMERICA (INC.). Velvet Manufacturers' Division. *Wages and hours of labor in the textile industries of England, France, Germany, Czechoslovakia, including data on social benefits and with particular reference to the velvet industry. New York, 468 Fourth Avenue, 1932. 63 pp.*

SIMIAND, FRANÇOIS. *Le salaire, l'évolution sociale et la monnaie. Essai de théorie expérimentale du salaire. Paris, Librairie Félix Alcan, 1932. Vol. I, 586 pp.; Vol. II, 620 pp.; Vol. III, 152 pp.*
The author discusses the effects of social and political conditions upon the movement of wages. In the first volume the method followed in the study is

defined, and the general movement of wages in France is traced. The second volume treats of the effect of economic and noneconomic facts on the trend of wages, and also discusses various economic theories, while volume three consists of charts and tables, various appendixes, and a bibliography.

TAO, L. K. *The standard of living among Chinese workers. Preliminary paper prepared for the fourth biennial conference of the Institute of Pacific Relations, Hangchow, October 21 to November 4, 1931. Shanghai, China Institute of Pacific Relations, [1931?]. 37 pp.*

Reviews briefly various budgetary studies which have been made among wage earners in China.

TRADE BOARD, MEN'S CLOTHING INDUSTRY, CHICAGO MARKET. *Decisions of the trade board and the board of arbitration, Nos. 906–1275, May 1, 1925, to April 30, 1931.*

The mimeographed decisions here listed have been brought together and bound as Volume VI, new series, with index.

VERBAND DER MALER, LACKIERER, ANSTREICHER, TÜNCHER UND WEISSBINDER DEUTSCHLANDS. *Unser Verband im Kampf gegen die Krise. Hamburg, 1932. 50 pp.*

A loose-leaf publication containing an account of the activities of the German Union of Painters, Varnishers, House Painters, and Whitewashers in connection with the present economic depression, and information on industrial diseases and accidents, wages, hours, unemployment, etc.

ZENTRALVERBAND DER HOTEL-, RESTAURANT- UND CAFÉ-ANGESTELLTEN. *Protokoll über die Verhandlungen des 14. Verbandstages in Dresden vom 10. bis 12. Mai 1932. Berlin, 1932. 127 pp.*

Contains minutes and proceedings of the 14th Congress of the German Central Organization of the Hotel, Restaurant, and Café Salaried Employees' Unions, held from May 10 to May 12, 1932, in Dresden, including information on wage agreements, unions of woman hotel workers, international movement of hotel workers, etc.

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